INPUT

Atrium at Glenpointe, 400 Frank W. Burr Blvd., Teaneck, NJ 07666 Tel. (201) 801-0050
Fax (201) 801-0441

June 8, 1992

Mr. Serge Godin
President and CEO
CGI Group
Suite 2901
1 Place Ville-Marie
Montreal, Quebec
H3B 4R5

Dear Serge:

Peter and I enjoyed our conversation last Monday and feel confident that INPUT can make a significant contribution to your strategic planning process. As promised, I have defined the elements of a continuous relationship for your review and approval.

Your suggestion that INPUT provide a review and analysis of who we consider to be the "Top 10" professional services firms is an excellent way for us to get started. Please note that INPUT can complete the "custom" part of our proposal within two weeks of your approval. We are well positioned to provide CGI with this analysis and are eager to begin right away.

I will call you during the week of June 8 to review INPUT's proposal. Thanks again for your confidence in INPUT, and I look forward to expanding our relationship.

Sincerely,

G. Christopher Smith
Vice President
Sales and Marketing

a:cs:PROP-CGI
cc: Peter Cunningham

INPUT PROPOSAL FOR SERVICES

CGI GROUP

Service Description	Fee (U.S. $)
1. Custom Study (June 1992)	$9,500
Provide CGI with INPUT's analysis of the top ten most successful professional services. This includes a written report, detailed company profiles and an on-site, half day meeting with a senior INPUT analyst. See Attachment 1.	
2. Annual Subscription Program (June 1992-June 1993)	$17,500
Provide CGI with data and analysis of the professional services market in the U.S. and Canada, with particular emphasis on the opportunities and impact of downsizing. In-depth reports, analyst hotline inquiry, conference attendance and an on-site planning session (a) included. See Attachment 2.	
3. Executive Planning Sessions	
Strategic Planning Sessions with Peter Cunningham	
• Half day June 1, 1992	$3,000
• Full day (future date)	(a) $5,000
Total Fees for Proposed Services	$35,000
Executive session credit* if all services outlined above are retained	($8,000)
Net Fee to CGI	**$27,000**

* INPUT offered a credit of the initial Executive Planning Session fee in its proposal of May 26, 1992.

(a) INPUT travel expenses are additional for all sessions held at client sites.

Attachment 1

INPUT PROPOSAL TO CGI GROUP

CUSTOM STUDY

CGI Objective: To develop a strategic plan that maximizes growth and profitability in the fast changing professional services market.

INPUT Role: To assist CGI executives in understanding the strategies, practices and profits of the most successful firms in the professional services marketplace.

INPUT Deliverables: INPUT will identify ten (10) firms it considers to be the most successful in the professional services marketplace, with success being measured on those who have demonstrated consistent growth and high profit margins. INPUT's analysis and deliverables will consist of the following:

1. Detailed profiles of the selected vendors
2. A summary report detailing the reasons for inclusion and what CGI can learn from their success.
3. An on-site presentation of the study results and an interactive session discussing these firms and alternative strategies in the professional services market in the 1990s.

Attachment 2

INPUT PROPOSAL TO CGI GROUP
ANNUAL SUBSCRIPTION PROGRAM

A. Market Forecast and Analysis Reports

1. Canadian Information Services
   Market Forecast and Analysis, 1992-1997

2. U.S. Professional Services
   Market Forecast and Analysis, 1992-1997

3. U.S. Systems Integration
   Market Forecast and Analysis, 1992-1997

B. Strategic Market Issue Studies

1. Client Server Applications and Markets
2. Pricing of Professional Services in the 1990s
3. The Impact of Outsourcing on Professional Services

C. Research Bulletins - (two times each month)

D. Access to INPUT Consultants for answers to CGI specific questions and issues via INPUT "Hotline" service

E. Two tickets to INPUT's 1992 Executive Conference "Competing in a Revolution" to be held in San Francisco on Monday and Tuesday, October 5-6

F. One on-site planning session with an INPUT senior analyst

AUTHORIZATION

To authorize the proposal as specified, please sign and return one copy of this proposal. Upon acceptance by INPUT, a countersigned copy of the proposal will be returned to CGI Group.

AUTHORIZED BY: CGI Group	ACCEPTED BY: INPUT
_____ Name	_____ Name
_____ Title	_____ Title
_____ Date	_____ Date

P.01

TRANSMISSION REPORT

NOV- [illegible] MON 17:43

ANTI	START	RECEIVER	TX TIME	PAGES	NOTE
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Fax (201) 801-0441

FAX TRANSMITTAL FORM

Date: 6/8/92

Confidential: Y / N
Urgent: Y / N

To: Name: Mr. Godin

Tel./Location: 514-394-3200

Co.:

Page: 1 of 6

Fax No: 514-394-3477

File: Chron
Contact
Other:

From: Chris Smith

Subject:

ORDER/INVOICE/FULFILLMENT

Acctg. ONLY

Inv. Comp.	By:	Date:	Client #	Order #	Inv. #	Multi-Invoicing of ___

CUSTOMER/INVOICE TO

ORIGINATOR (Signaure) [signature] DATE 6/26/92

Company CGJ
Name Mr./Ms. Francois Chassé
Position Sr VP
Address 1 Place Ville Marie
Suite 2901
City Montreal
Province Quebec
Phone 514 394 3200

CA Tax Rate
CT Tax 8%
Salutation
State
Zip H3B 4R5
Country Canada
Fax 514 394 3494
Tlx

APPROVALS
VP Sales/Res.
Date
Controller
Date

Special instructions for invoicing, progress billing, or delayed payments, etc.

ORDER

Contract Year Beg.
End

☐ New Order (N1) ☐ Prior Yr (N3)
☐ Renewal (N2) ☐ Cancel

Invoice Type ☐ Fulfillment Only ☐ W/Order (OR) ☐ Monthly (MO) ☐ Quarterly (QT) ☐ Pending

Employee # Sold by:	%	Employee # Commission to:	%
CS	%		%
PAC	%		%
	%		%

CLIENT AUTH.

PO#
Attach all authorizing documents to white (contract) copy.

INPUT Contract ☒ Letter ☐ Verbal ☐

SHIP TO

Company
Name Mr./Ms.
Position
Address
City
Province
Salutation
State
Zip
Country
Phone

ITEM TYPE

- Subscription (SB)
- Custom (YC/ZC/KC)VC
- Multiclient (MC)
- Reports (RP)
- Copies (CP)
- Consult/Present (PR)
- Newsletter (NL)
- Reimbursed Costs (EX)
- Merger/Acq. (ME)
- Exec Overview (EO)
- Conf/Seminar (CN)

DETAIL

Indicate US, UK, FR, VA	Prod. ID/Year	Item Type Code	Item Description or Title	Quantity	Price	Shipped By	Date
US	YNCGJ	YC	Top 10 Prof Svc Firm		9,500		
US	YNQAD	PR	Exec Pres		n/c		
US	WMCN3	MC	Canadian Study		6,000		
US	MAMAP	SB	5 rpts + hot line		11,500		
			per 6/17 letter				
~~VA~~	~~SISIP~~				~~$~~ 27,000		

Fulfillment to be completed in: ☐ Corporate ☐ London ☐ Virginia ☐ France ☐ Other

• White - Contract • Green - Fulfillment • Yellow - Invoice • Pink - Originator • Goldenrod - Sales Manager

M&S180 11/90

INPUT

AUTHORIZATION

To authorize the project as specified, please check the appropriate option, sign, and return one copy of this proposal, along with the initial fee. Upon acceptance by INPUT, a countersigned copy of the proposal will be returned to CGI Group.

_____ **Option 1** INPUT Custom Study
Executive Planning Session

Fee: $17,500 (U.S.)

✓ **Option 2** INPUT Custom Study
Executive Planning Session
Annual Subscription Program

Fee: $27,000 (U.S.)

AUTHORIZED BY:
CGI Group

F. Chasse
Name

Senior Vice President
Title

June 26/1992
Date

ACCEPTED BY:
INPUT

Name

T. O'Palant
Title

VP
Date

July 2 1992

INPUT®

Atrium at Glenpointe, 400 Frank W. Burr Blvd., Teaneck, NJ 07666 (201) 801-0050
Fax (201) 801-0441

FAX TRANSMITTAL FORM

Date: July 2, 1992

Confidential: Y / N
Urgent: Y / N

To: Name: Francois Chasse

Tel./Location:

Co.: CGI Group

Page: 1 of 2

Fax No: 514-394-3494

File: Chron
Contact
Other:

From: Joanne Boyle

Subject: Secretary to Mr. O'Flaherty

Attached is a copy of our countersigned proposal authorization form. Please let me know if I can be of further assistance.

INPUT

Atrium at Glenpointe, 400 Frank W. Burr Blvd., Teaneck, NJ 07666 Tel. (201) 801-0050
Fax (201) 801-0441

June 26, 1992

To: Francois Chasse
Sr. Vice President
CGI

Fm: Tom O'Flaherty
Vice President
INPUT

Sub: Review and Analysis of Top Ten Professional Services Firms

As we discussed earlier this week, I am sending an outline of our approach.

Definition of "Success"

The primary benchmarks will be consistently good growth (over 15% annually for at least three years) and/or good margins (over 15% pretax). Firms should be at least $50 million. We are excluding firms (or divisions of firms) which focus primarily on the U.S. Federal market because of their specialization -- and because most would not make the dollar cutoffs. Our current list includes

Andersen
Cap Gemini
CSC (non-federal)
CTG
DEC
EDS (non-GM)
IBM
Oracle Complex Systems
Perot
TSC

We could adjust this list somewhat and would welcome any further suggestions.

Coverage

Each firm would be individually profiled, using the categories below. Then, the firms would be compared across key categories, discussing likenesses and differences. Finally, key success factors would be summarized.

Categories

Revenue trends, growth rates
Profitability, margins
Specialization (geography, functional/technical, industry), with approximate percentages for each)
Organization
Training
Compensation/Incentives
Method of planning for growth
Role of acquisitions
Strengths and weaknesses

(We will have data in most categories for each company)

I would appreciate any comments and suggestions so that this will best meet your needs.

INPUT®

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Fax (201) 801-0441

FAX TRANSMITTAL FORM

Date: June 26

Confidential: Y / N
Urgent: (Y) / N

To: Name: Francois Chassé

Tel./Location:

Co.: CCI

Page: 1 of 3

Fax No: 514-394-3494

File: Chron
Contact
Other:

From: Tom O'Flaherty

Subject: Attached Memo

Le groupe **cgi**

The **cgi** group

DATE: 26/6 TIME/HEURE:

NUMBER OF PAGES: 2 (including this cover page)
NOMBRE DE PAGES: (incluant la page couverture)

THIS TRANSMISSION IS FOR THE ATTENTION OF:
CETTE TRANSMISSION EST À L'ATTENTION DE:

NAME/NOM: Ms Cheris Smith

CO/CIE: INPUT

ADDRESS/ADRESSE:

FAX/TELECOPIEUR: (201) 201 - 0441

FROM/DE: François Chrest

TEL: (514) 394-3200

FAX/TELECOPIEUR: (514) 394-3494

NOTES:

AUTHORIZATION

To authorize the project as specified, please check the appropriate option, sign, and return one copy of this proposal, along with the initial fee. Upon acceptance by INPUT, a countersigned copy of the proposal will be returned to CGI Group.

_____ **Option 1** INPUT Custom Study
Executive Planning Session

Fee: $17,500 (U.S.)

✓ **Option 2** INPUT Custom Study
Executive Planning Session
Annual Subscription Program

Fee: $27,000 (U.S.)

AUTHORIZED BY:
CGI Group

F. Chasse
Name

Sr. Vice President
Title

June 26/1992
Date

ACCEPTED BY:
INPUT

Name

Title

Date

INPUT

Atrium at Glenpointe, 400 Frank W. Burr Blvd., Teaneck, NJ 07666 Tel. (201) 801-0050
Fax (201) 801 0441

AUTHORIZATION

To authorize the project as specified, please check the appropriate option, sign, and return one copy of this proposal, along with the initial fee. Upon acceptance by INPUT, a countersigned copy of the proposal will be returned to CGI Group.

✓ Option 1 INPUT Custom Study
Executive Planning Session

Fee: $17,500 (U.S.)

_____ Option 2 INPUT Custom Study
Executive Planning Session
Annual Subscription Program

Fee: $27,000 (U.S.)

AUTHORIZED BY: CGI Group	ACCEPTED BY: INPUT
FRANÇOIS CHASSÉ	
Name	Name
SENIOR VICE - PRESIDENT	
Title	Title
June 22 - 1992	
Date	Date

Le groupe **cgi**

The **cgi** group

DATE: 2/2/6 TIME/HEURE:

NUMBER OF PAGES: 2 (including this cover page)
NOMBRE DE PAGES: (Incluant la page couverture)

THIS TRANSMISSION IS FOR THE ATTENTION OF:
CETTE TRANSMISSION EST À L'ATTENTION DE:

NAME/NOM: Mr Chris Smith

CO/CIE: INPUT

ADDRESS/ADRESSE:

FAX/TELECOPIEUR: (201) 801 - 0441

FROM/DE: Francis Chassé

TEL: (514) 394-3200

FAX/TELECOPIEUR: (514) 394-3494

NOTES:

INPUT

Atrium at Glenpointe, 400 Frank W. Burr Blvd., Teaneck, NJ 07666 Tel. (201) 801-0050
Fax (201) 801-0441

June 17, 1992

Mr. Francois Chasse
Senior Vice President
CGI Group
Suite 2901
1 Place Ville-Marie
Montreal, Quebec
H3B 4R5

Via Fax: 514-394-3494

Dear Francois:

Thanks for your confidence in INPUT and your decision to move forward on our proposal for a custom study. We will begin work on this project as soon as you return the attached authorization to us.

I am certain CGI can also gain significant on-going value from an annual subscription program focusing on professional services. My proposal provides a series of forecasts and strategic issue reports focused on your market, including:

- INPUT's authoritative study of the Canadian market (Table of Contents attached)
- INPUT's forecast and analysis of the U.S. Professional Services Market
- INPUT's forecast and analysis of the U.S. Systems Integration
- INPUT's findings from three studies focused on Client/Server Applications and Markets, Pricing of Professional Services in the 1990s, and The Impact of Outsourcing on Professional Services

These reports, when combined with your ability to call our analysts or help with issues specific to your strategic and tactical plans, complement the custom study very well. I hope you will agree that this part of the proposal is a very worthwhile investment.

We look forward to working with you, Serge and your colleagues at CGI. Please fax the authorization back to me at your earliest convenience.

Sincerely,

G. Christopher Smith
Vice President
Sales and Marketing

a:cs:CGI-AUTH
cc: Serge Godin, CGI
Pete Cunningham, INPUT
Bob Clark, INPUT

INPUT

Atrium at Glenpointe, 400 Frank W. Burr Blvd., Teaneck, NJ 07666 Tel. (201) 801-0050
Fax (201) 801-0441

AUTHORIZATION

To authorize the project as specified, please check the appropriate option, sign, and return one copy of this proposal, along with the initial fee. Upon acceptance by INPUT, a countersigned copy of the proposal will be returned to CGI Group.

_____ **Option 1** INPUT Custom Study
Executive Planning Session

Fee: $17,500 (U.S.)

_____ **Option 2** INPUT Custom Study
Executive Planning Session
Annual Subscription Program

Fee: $27,000 (U.S.)

AUTHORIZED BY: CGI Group	ACCEPTED BY: INPUT
Name	Name
Title	Title
Date	Date

MAY 1992

CANADIAN INFORMATION SERVICES MARKET

1992-1997

INPUT®

1280 Villa Street, Mountain View, California 94041-1194 (415) 961-3300

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P.01

TRANSMISSION REPORT

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JUN-17	12:18	15143943494	2:04"	7	OK

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FAX TRANSMITTAL FORM

Date: June 17, 1992

Confidential: Y / N
Urgent: Y / N

To: Name: Francois Chasse

Tel./Location:

Co.: CGI Group

Page: 1 of 7

Fax No: 514-394-3494

File: Chron
Contact
Other:

From: Chris Smith

Subject: INPUT Proposal and Authorization

X

PROJECT SCHEDULE

Activity	Name	Act. Days	Factor	ESD	Week 1	2	3	4	5	6	7	8	9	10	11	12	13	14
Select cost criteria, templates	TR			½	½													
Prepare first cut	TR/McLann			½		½												
Circulate for comment	Sr			1		½	½											
Update, draw conclusions	TR/McL			2				2										
Prepare pier	"			1				1										
Make pres	TR			1					1									
TOTAL PLAN SR.																		
TOTAL PLAN RA																		
TOTAL PLAN ESDs				6														

Proj. Code: YNCGI Proj. Name: Top 10 PPS CGI Prepared by: TR 6/26

	Person Days							
	September				Year			
	Actual	ESMD	Accomplish	Plan	Actual	ESMD	Accomplish	Plan
BUDGET	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.6
100 O'Flaherty, Tom	1.4	1.4	1.0	0.0	3.1	3.1	2.7	0.0
506 McGann, John	0.0	0.0	0.0	0.0	2.9	2.9	2.9	0.0
20 Research	1.4	1.4	1.0	0.0	6.0	6.0	5.6	6.6
441 Wade, Calvin	1.9	0.0	0.0	0.0	1.9	0.0	0.0	0.0
444 Jeris, Andrea	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
445 Lucas, Alicia	0.6	0.0	0.0	0.0	0.6	0.0	0.0	0.0
559 Boyle, Joanne	2.2	0.0	0.0	0.0	4.4	0.0	0.0	0.0
599 Trabucco, Anna	0.2	0.0	0.0	0.0	0.2	0.0	0.0	0.0
60 Research Production Support	5.1	0.0	0.0	0.0	7.3	0.0	0.0	0.0
YN-CGI Custom - CGI	6.5	1.4	1.0	0.0	13.3	6.0	5.6	6.6

(CGF)

(1) These were sent to Mt View earlier to be worked up

(2) No changes, except for that discussed with Anna (Ex II-5)

(3) Exhibit #'s inserted

Differences between Professional Services and Systems Integration

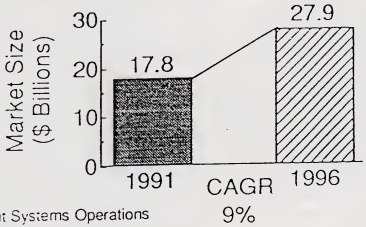
Category	Standalone Professional Services	Systems Integration
Project Duration	Can be continuous	Limited
Project Management Responsibility	Usually customer	Prime contractor
Computer Equipment Selection	Customer	Prime contractor for customer
Services Provided	Often a single service (e.g., software development)	Usually multiservice, including hardware/software integration
Pricing	Time and materials	Fixed-price
Item Purchased	Resources	"A solution"

p 47 FCPRS - 1990 (Ex V-8)

#5

EX II-2

U.S. Professional Services Market,* 1991-1996



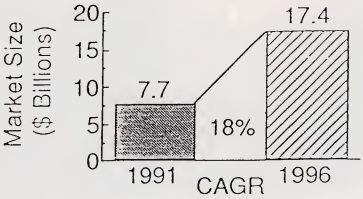
* Without Systems Operations

Notes

PF-11

9/26/91

U.S. Systems Integration Market 1991-1996



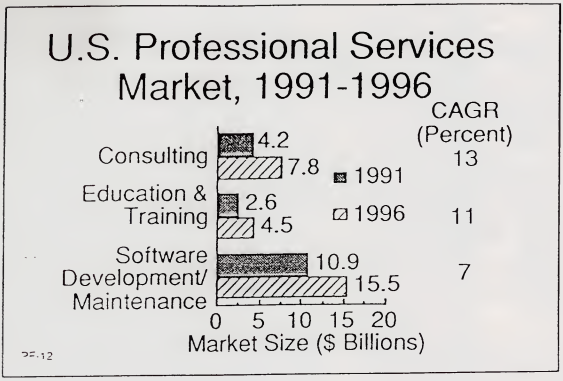
SI-5

Notes

SI-8

9/13/91

Ex II-4



Notes

PE-12

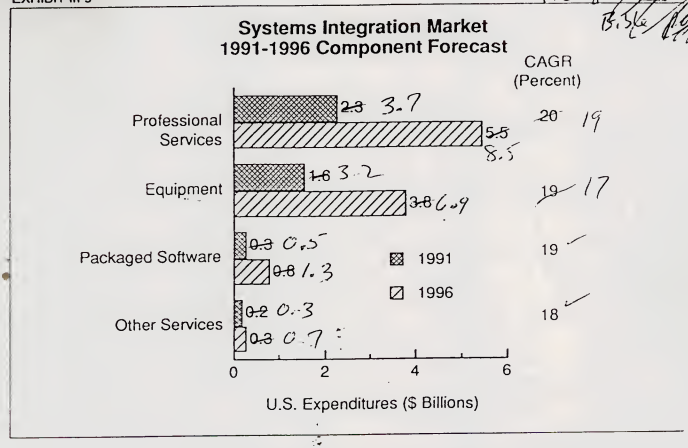
9/26/91

Exhibit II-5

(replace SI-40)

① This is really only for the commerical market ② Fill in correct #s from Revise B.S. Paper

EXHIBIT III-9

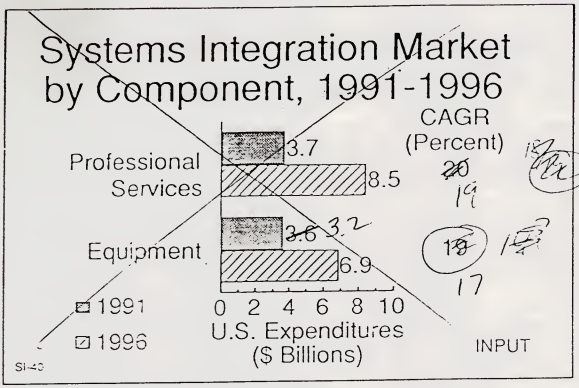


The professional services and equipment components dominate spending for systems integration—with professional services expenditures leading at $2.3 billion in 1991. In the professional services component, software development is the predominant service required, although SI clearly requires other components: consulting, project management, design/integration, education and training, and operation and maintenance. Additional elements of the four SI components, listed in Exhibit III-1, are briefly discussed below.

a. Equipment

Information systems and communications equipment is currently the second largest component of SI expenditures (36%), as shown in Exhibit III-10. This is not expected to change. By its very nature, SI is equipment-intensive. Hardware price/performance gains that would seemingly reduce the hardware component will be offset by productivity improvements in programming technology and the increased use of packaged software, particularly in the private sector.

old Ex II-5



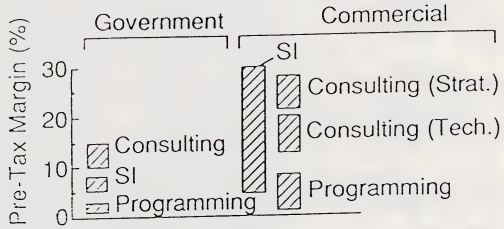
Notes

SI-40
SI 141

Changed per discussion w/ Anna Produces 8/24

CI II-6

Typical Professional Services Margins



PF-56

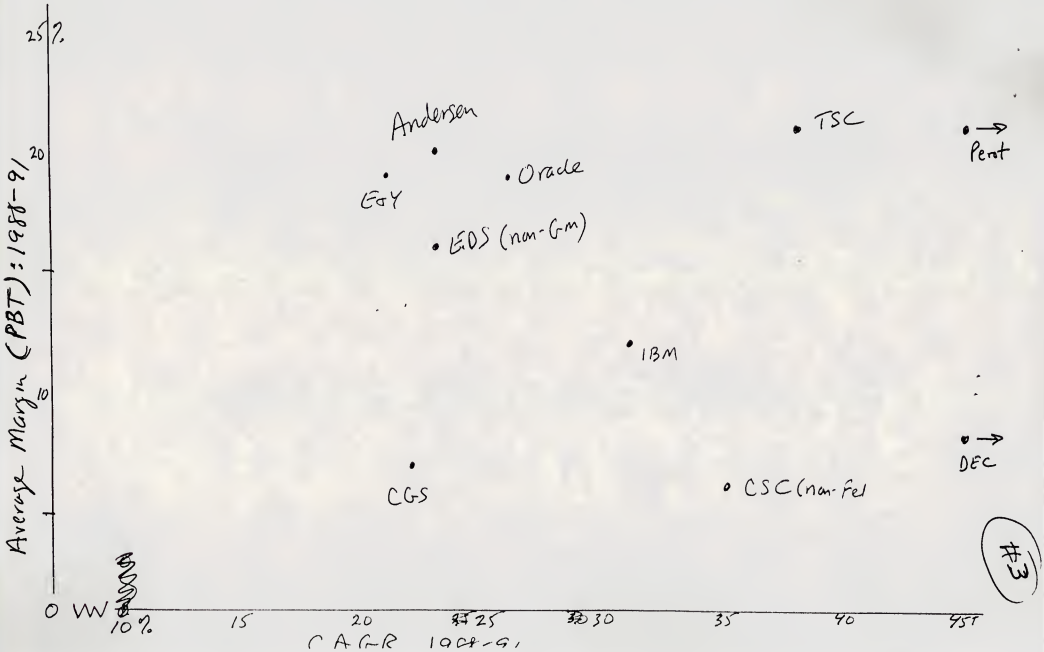
Source: INPUT estimates

Notes PF 56

9/16/91

Ex 3

Professional Services / SI : Margins vs Growth Rates, 1988-91

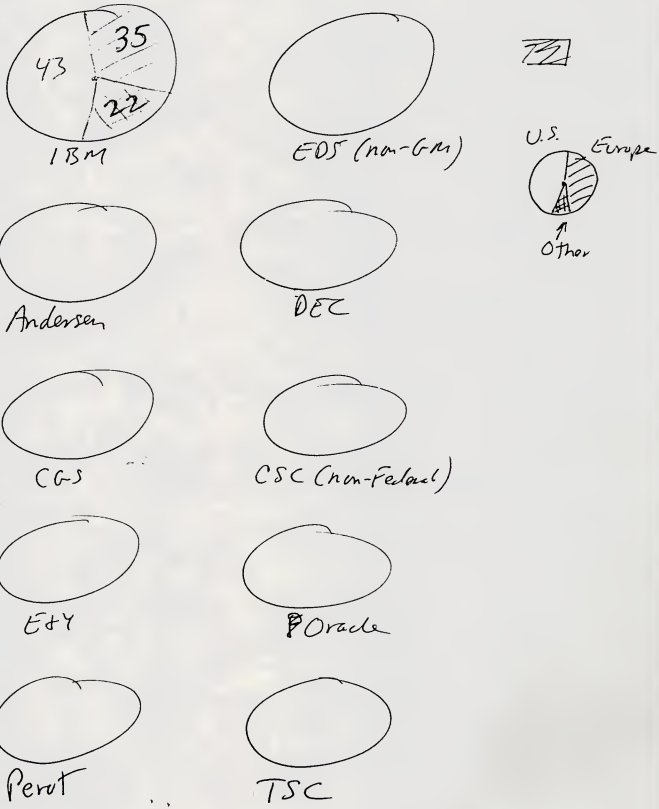


#3

"Top Ten" Professional Services/Systems Integration Firms: Geographic Distribution of 1991 Revenues

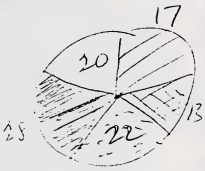
#6

Ex 4



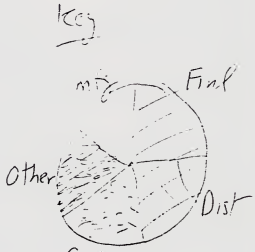
"Top Ten" Professional Services/SI Firms: Vertical Market Specialization (1991)

Ex. 5

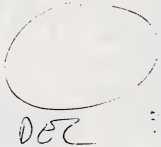


IBM

EDS (non-Gov)



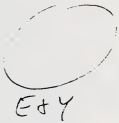
Andersen



DEC

CGS

CSC (non-Federal)



E&Y

Oracle

Peat

TSC

(for selected professional service firms

CRITICAL SUCCESS FACTORS

COMPANY	GLOBAL	INSTALLED BASE	SI	VERTICAL FOCUS	MANAGEMENT PRACTICES	ACQUISITIONS	TECHNICAL SPECIALTY	ORGANIZATION
IBM	X	X	X				IBM	
DEC	X	X	X				DEC	
CSC			X		X	X		ACQ. MGT.
EDS			X	X	X	EUROPE	OUTSOURCING	1989 CHANGES
ANDERSEN	X		X	X	X		SI	MATRIXED
E & Y	X		X	X				DECENTRALIZED
TSC			X	X	X			
CGS						X		ACQ. MGT.
PEROT			X		X		APPL MGT.	
ORACLE	X	X	X				ORACLE	

#6

Presentation

Analysis of "Top Ten" Professional Services Firms

Presented to:

CGI

August 6, 1992

Presented by:

INPUT

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AGENDA

- Introduction
- Industry overview
- Review of individual firms
- Summary: Critical Success Factors
- Individual Profiles (detail)

INTRODUCTION

- Professional services/systems
- Integration operations selection criteria
  - Over 20% compound growth rate 1988 - 1991
  - Consistently profitable
- Review of INPUT data
- INPUT analysts' contributions

INPUT

California, New York, Washington D.C.,
London, Paris, Tokyo

Primary Research Emphasis

Senior Executives Experienced in
Information Services

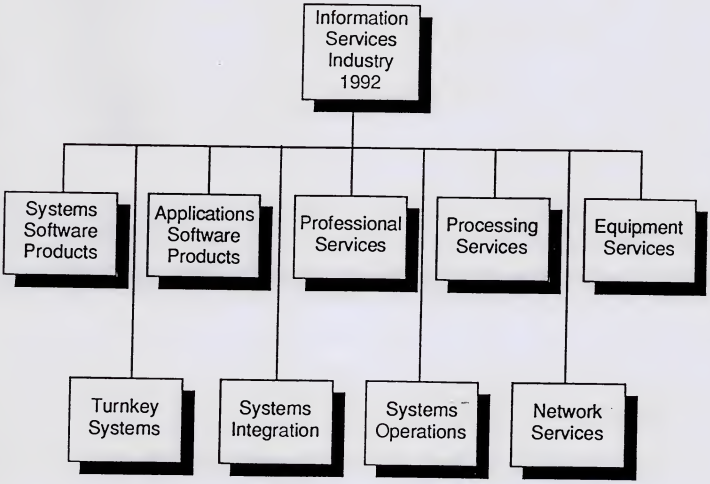
Forecast from Comprehensive Data Base

INPUT

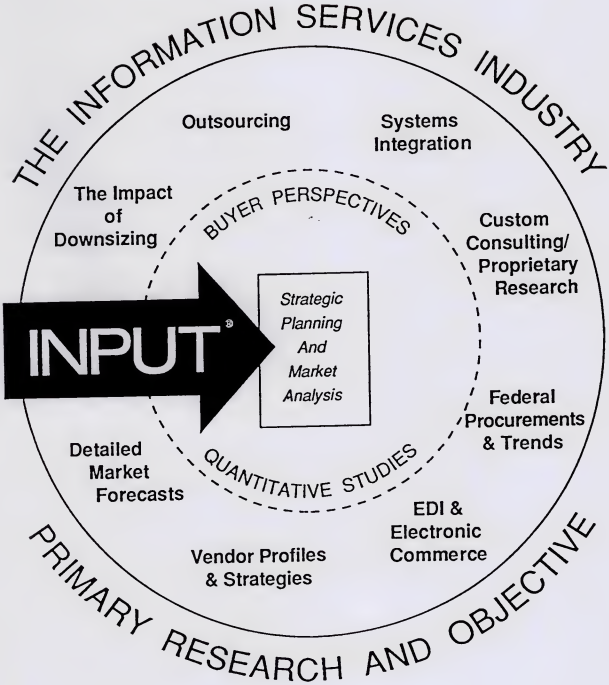
MS-7

Notes

INPUT's Unique and Comprehensive Coverage



M&S 430/01 5/92


THE INFORMATION SERVICES INDUSTRY
Outsourcing
Systems Integration
The Impact of Downsizing
BUYER PERSPECTIVES
Custom Consulting/ Proprietary Research
INPUT®
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QUANTITATIVE STUDIES
EDI & Electronic Commerce
Vendor Profiles & Strategies
PRIMARY RESEARCH AND OBJECTIVE

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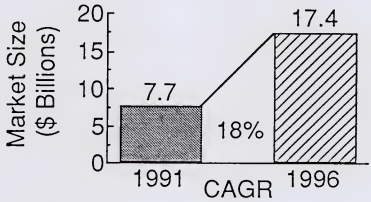
Differences between Professional Services and Systems Integration

Category	Standalone Professional Services	Systems Integration
Project Duration	Can be continuous	Limited
Project Management Responsibility	Usually customer	Prime contractor
Computer Equipment Selection	Customer	Prime contractor for customer
Services Provided	Often a single service (e.g., software development)	Usually multiservice, including hardware/ software integration
Pricing	Time and materials	Fixed-price
Item Purchased	Resources	"A solution"

U.S. Systems Integration Market 1991-1996



SI-8

Notes

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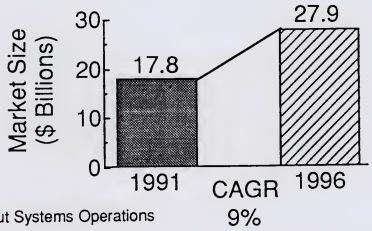
U.S. Professional Services Market,* 1991-1996



* Without Systems Operations

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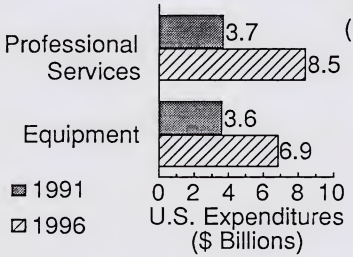
Notes

9/26/91

Systems Integration Market by Component, 1991-1996



INPUT

SI-40

Notes

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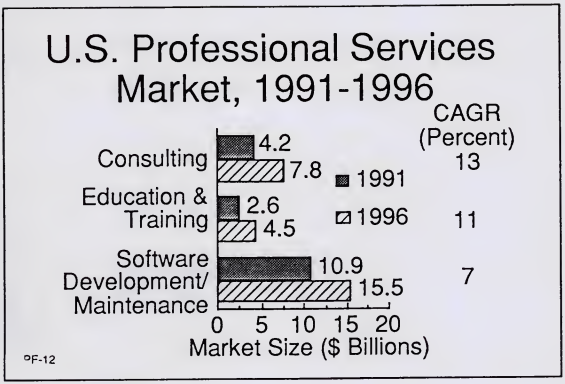

Notes

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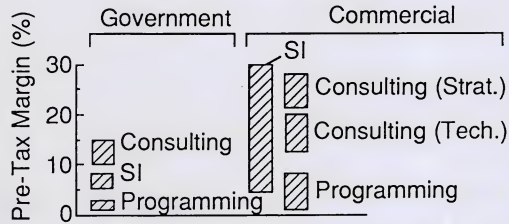
Typical Professional Services Margins



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Source: INPUT estimates

Notes

9/16/91

IBM

1991 Revenue:		$ 5,437 Million
Compound Growth	1988-1991:	31%
Average Margin (PBT)	1988-1991:	12%

Geographic Focus	%
• U.S.	43
• Europe	35
• Other	22

Vertical Focus	%
• Manufacturing	20
• Financial	17
• Other	63

Business Focus	%
• Systems Integration	75
• Smaller Project Responsibility	23
• Other	2

Critical Success Factors

- IBM's sizable, global presence is a strong factor supporting large scale projects, particularly international ones.
- IBM's installed base also helps to provide an assurance of service and continuing presence.
- The experience in SI, which IBM has developed over a period of years, is reflected in its ability to market and manage large, multi-vendor projects. This experience also helps IBM to be considered for new projects.
- Knowledge of IBM equipment should not be overlooked as a success factor. IT provides IBM the opportunity to be considered or participate in many, large jobs.

DEC

1991 Revenue:		$1,793 Million
Compound Growth	1988-1991:	51%
Average Margin (PBT)	1988-1991:	8%

Geographic Focus	%
• U.S.	45
• Europe	39
• Other	16

Vertical Focus	%
• Manufacturing	17
• Financial	23
• Other	60

Business Focus	%
• Systems Integration	67
• Smaller Project Responsibility	32
• Other	1

Critical Success Factors

- DEC has sufficient presence in global markets as well as a worldwide level of installed equipment that can provide reassurance of support and confidence in problem resolution.

- DEC's experience with SI in a number of industries and its knowledge of transaction processing data management and open systems provide strength in SI marketing.

CSC (Non-federal)

1991 Revenue:		$758 Million
Compound Growth	1988-1991:	35%
Average Margin (PBT)	1988-1991:	7%

Geographic Focus	%
• U.S.	87
• Europe	13
• Other	

Vertical Focus	%
• Manufacturing	19
• Financial	30
• Other	51

Business Focus	%
• Systems Integration	31
• Smaller Project Responsibility	40
• Other	29

Critical Success Factors

- CSC has developed and acquired the ability to sell and manage large multivendor SI projects and the industry/application knowledge to handle projects in key market areas.
- CSC has coordinated different orientations toward professional services/SI work (consulting of Index, industry skills of Partners, SI marketing of Cleveland consulting) while absorbing firms. This demonstrates both strength in management practices similar to a Big 6 firm and strength in acquisitions management.
- The acquisitions that CSC has made have given the company the consulting capability needed to help sell and initiate large, profitable contracts as well as t administer and manage them.

EDS (Non-GM)

1991 Revenue:		$3,550 Million
Compound Growth	1988-1991:	23%
Average Margin (PBT)	1988-1991:	16%

Geographic Focus	%
• U.S.	81
• Europe	13
• Other	6
Vertical Focus	%
• Manufacturing	50
• Financial	24
• Other	26
Business Focus	%
• Systems Integration	22
• Smaller Project Responsibility	15
• Other	63

Critical Success Factors

- The strength of EDS in SI is marked by its ability to anticipate and support the needs of large organizations.

- EDS takes has as an objective to learn as much as possible about the areas of vertical markets that it will focus on. This was made possible by their 1989 reorganization.

- The strength that EDS has gained over time in outsourcing has proven to be an important asset as this technique has gained popularity.

- In Europe, EDS has gained needed strength for developing the market through selected acquisitions.

ANDERSEN CONSULTING

1991 Revenue:		$ 2,260 Million
Compound Growth	1988-1991:	23%
Average Margin (PBT)	1988-1991:	20%

Geographic Focus	%
• U.S.	48
• Europe	40
• Other	12
Vertical Focus	%
• Manufacturing	37
• Financial	26
• Other	37
Business Focus	%
• Systems Integration	63
• Smaller Project Responsibility	30
• Other	7

Critical Success Factors

- Andersen has important global strength through its information services business as well as its auditing activities.
- Andersen's SI strength has been developed through assignments as well as a set of products that help to support SI work.
- The vertical focus of the firm has been supported with demonstrations that help to convince prospects about Andersen's knowledge and methods of addressing problems.
- Management provides unusually strong central direction in a partnership environment.
- The matrixed organization of Andersen allows specialties and industry expertise to be brought to bear on SI and other projects.

ERNST & YOUNG

1991 Revenue:		$551 Million
Compound Growth	1988-1991:	21%
Average Margin (PBT)	1988-1991:	19%

Geographic Focus	%
• U.S.	64
• Europe	23
• Other	13

Vertical Focus	%
• Manufacturing	17
• Financial	30
• Other	53

Business Focus	%
• Systems Integration	35
• Smaller Project Responsibility	45
• Other	20

Critical Success Factors

- Ernst & Young has gained a global presence and reputation through its auditing work that has been highly useful in gaining prospects and helping to close information services contracts.
- Through internal training and alliances, Ernst & Young has developed the project management and industry knowledge and skills to perform SI work.
- The vertical knowledge that E & Y has gained in finance, banking/finance and other industries has proved to be critical in gaining work.
- E & Y has also managed to support a decentralized type of operation that has encouraged separate offices to develop and use strengths to gain SI and professional services work.

TSC

1991 Revenue:		$ 63 Million
Compound Growth	1988-1991:	38%
Average Margin (PBT)	1988-1991:	21%

Geographic Focus	%
• U.S.	99
• Europe	1
• Other	

Vertical Focus	%
• Manufacturing	89
• Financial	9
• Other	2

Business Focus	%
• Systems Integration	95
• Smaller Project Responsibility	2
• Other	3

Critical Success Factors

- TSC has sought and gained personnel strengths in SI that have been critical in selling and performing projects.
- TSC has also gained and developed strength in industries and applications that have been crucial to success. The knowledge of certain discrete applications which TSC has is an outstanding demonstration of the role that vertical focus plays.
- The management practices of TSC which resemble those of some of the Big 6 enforce the performance of a team and highly motivate team management and performance.

CAP GEMINI SOGETI

1991 Revenue:		$1,776 Million
Compound Growth	1988-1991:	22%
Average Margin (PBT)	1988-1991:	7%

Geographic Focus	%
• U.S.	11
• Europe	87
• Other	2

Vertical Focus	%
• Manufacturing	22
• Financial	32
• Other	46

Business Focus	%
• Systems Integration	11
• Smaller Project Responsibility	21
• Other	68

Critical Success Factors

- CGS has shown the ability to build a company and develop professional services/SI strengths through acquisitions. In addition to its acquisition of SESA in France, CGS has gained market share and capabilities in the U.S., West Germany, Italy, and other countries.

- The acquisitions of CGS, including its purchase of United Research and the MAC Group, demonstrates an ability in acquisition management. The components support long range CGS goals and contribute their unique strengths.

PEROT SYSTEMS

1991 Revenue:		$150 Million
Compound Growth	1988-1991:	93%
Average Margin (PBT)	1988-1991:	21%

Geographic Focus	%
• U.S.	98
• Europe	2
• Other	-

Vertical Focus	%
• Manufacturing	10
• Financial	35
• Other	55

Business Focus	%
• Systems Integration	35
• Smaller Project Responsibility	65
• Other	-

Critical Success Factors

- Perot has capitalized on the knowledge of employees who formerly worked for EDS to provide the marketing and large scale project management capabilities required for success.
- The management practices of Perot, which support dedicated efforts by a team, are also a key success factor for the firm.
- Perot also has the ability and experience to develop the interests of prospects and clients in application management.

ORACLE

1991 Revenue:		$ 239 Million
Compound Growth	1988-1991:	26%
Average Margin (PBT)	1988-1991:	19%

Geographic Focus	%
• U.S.	38
• Europe	50
• Other	12

Vertical Focus	%
• Manufacturing	15
• Financial	20
• Other	65

Business Focus	%
• Systems Integration	43
• Smaller Project Responsibility	47
• Other	10

Critical Success Factors

- The global business and installed base of Oracle accounts provides an image of having service nearby and assuring prospects that Oracle will continue to be in business. Both are necessary to support marketing for large SI and professional services contracts.

- The strength in running large SI contracts which Oracle acquired and supplement through contracts to develop and modify data management systems for a number of industries is a strong factor in its current performance. The widespread use of Oracle data management products has become, by itself, a critical factor in view of the widespread use of these products.

INDUSTRY SUMMARY

Company	PS/SI Revenue $MM (1991)	CAGR (1988-91)	Average Margin PBT (1998-91)	Geographic Distribution U.S.	Geographic Distribution Eur.	Vertical Markets (%) Mfg.	Vertical Markets (%) Finl.	Vertical Markets (%) Dist.	Vertical Markets (%) Gov't	Vertical Markets (%) Other
IBM	$5437	31 %	12 %	43 %	35 %	20	17	13	22	28
DEC	1793	51	8	45	39	17	23	16	25	19
CSC (non-fed)	758	35	7	87	13	19	30	23	2	26
EDS	3550	23	16	81	13	50	24	7	10	9
Andersen	2260	23	20	48	40	37	26	8	12	7
E & Y	551	21	19	64	23	17	30	15	12	26
TSC	63	38	21	99	1	89	9			2
CGS	1776	22	7	11	87	22	32	15	7	24
Perot	150	93	21	98	2	10	35	38	7	10
Oracle	239	26	19	38	50	15	20	10	40	15

CRITICAL SUCCESS FACTORS

Company	Global	Installed Base	SI	Vertical Focus	Management Practices	Acquisitions	Technical Specialty	Organi-zation
IBM	X	X	X				IBM	
DEC	X	X	X				DEC	
CSC			X		X	X		Acq. mgt.
EDS			X	X	X	Europe	Outsourcing	1989 Changes
Andersen	X		X	X	X		SI	Matrixed
E & Y	X	X	X	X				Decentralized
TSC			X	X	X			
CGS						X		Acq. mgt.
Perot			X		X		Appl mgt.	
Oracle (PS/SI)	X	X	X				Oracle	

Top Ten Profile Sheet
IBM (Professional Services & SI)

FINANCIALS:

	Revenues		Profit (before tax)	
	$ Millions	% Increase	$ Millions	% Increase
1991	5437	32	650	34
1990	4116	32	485	33
1989	3120	28	365	30
1988	2430	n/a	280	n/a

BUSINESS FOCUS:

Type of Business	Approx. % *	Trends
Project-Oriented		
Project Responsibility		
Systems Integration	75	
Smaller Projects	23	
Task/Contract Programming		
Management Consulting	2	
Other (Network Services/Turnkey)	7	
Outsourcing		
Platform Management		
Applications Management		
Network Supply/Management		
Other		
TOTAL	100%	

*Does not include outsourcing, software products, network services or processing.

SPECIALIZATION:

Geography	Approximate % 1992	1997
U.S.	43	41
Europe and Africa	35	36
Canada	4	4
Other (Asia)	18	19
TOTAL	100	100

COMMENTS: Will be participating indirectly in multiple geographic markets through investments and alliances, also.

Industry (if under 3% put in "other")	Approx. %	Trends
Manufacturing	20	Increasing
Financial	17	Flat
Telecomm, transportation and utilities	12	Increasing
Wholesale/retail and other services	13	Flat
Government	22	Decreasing
Cross-industry: Office, human resources, accounting, planning, engineering/scientific, other)	11	Decreasing
Other	5	Flat
TOTAL	**100**	

Technical Specialties:

Communications	
Network Integration	Specialty
Distributed/LAN	Specialty
Database	Specialty
CASE	Specialty
Transaction processing	Specialty
Data collection	
Other	

ACQUISITIONS/ALLIANCES

- Many investments in other vendors including AMS, AIC, Knowledgeware.
- Alliances and arrangements with Coopers & Lybrand, Apple and many other hardware, services and software vendors

ORGANIZATION

IBM is now split into manufacturing/development businesses and marketing/services companies. The latter sells and delivers SI and professional services through geographically distributed offices (62 trading areas in the U.S.). The manufacturing/development businesses include some supplementary services capabilities, but most of the strength for doing SI/professional services jobs is housed in the trading areas and profits from the Synergy with the sales personnel and client contacts.

TRAINING

Extensive training that includes local as well as separate facilities. Training includes technical, management, business, industry, problem solving, psychological and other elements to met all needs that can arise. The education and training is shaped to provide all IBM internal and client needs as well as to be a separate marketplace force and revenue contributor.

COMPENSATION/INCENTIVES

Salary plus commission for sales; commission targeted to support company goals. Now have means of sharing rewards across client teams.

METHOD OF PLANNING FOR GROWTH

- Improving market response by distributing control of products and services into many separate businesses.
- Have organized to bring broad range of support capabilities to sales locations
- Programs are in place to help clients move in concert with new IBM information technology plans
- Research and investments in other IT vendors helps to ensure that IBM has aid in assessing and responding to emerging needs with appropriate development

STRENGTHS

- Comprehensive and thorough approach to marketing and sales as well as research and development
- Willing to modify and redirect efforts in software, services or hardware, but will act most rapidly in services as shown by SI and SO businesses
- Willing to copy or acquire products and services that meet market needs and to work at improving them

WEAKNESSES

- Reluctant to back pioneering steps or radically new initiatives such as new methods of providing incentive to the SI/professional services area or technology just beyond their planning horizon
- Has lagged market in introduction of PCs, workstations, parallel processing, RISC
- Absorbing new staff and organization

OVERALL ASSESSMENT

IBM's continuing work with large clients, ongoing research in technology and history of closely tracking the work of competitors and users will make it continue to be a major force in the SI/professional services market. These characteristics may make it a stronger contender in the services market than in some other markets.

IBM will also profit from its flexibility in responding to opportunities. Although it's initiative to sell strategic consulting has not reached the level of success desired, the people selling strategic consulting found ways of bringing IBM into large projects IBM has learned to use temporary agencies to locate needed capabilities for customers.

IBM will not be the leader in providing for solutions in certain industries as Andersen Consulting, TSC or EDS might be, but it will be ready to serve more targets by itself or in concert with many other companies.

Top Ten Profile Sheet
Digital Equipment Corporation

FINANCIALS:

	Revenues		Profit (before tax)	
	$ Millions	% Increase	$ Millions	% Increase
1991	1793	17	145	21
1990	1526	94	120	85
1989	785		65	
1988	n/a	n/a	n/a	n/a

BUSINESS FOCUS:

Type of Business *	Approx. % *	Trends
Project-Oriented		
Project Responsibility		
Systems Integration	67	
Smaller Projects	32	
Task/Contract Programming		
Management Consulting		
Other (Network Services/Turnkey)		
Outsourcing		
Platform Management		
Applications Management	1	
Network Supply/Management		
Other		
TOTAL	100%	

* Does not include software, turnkey and hardware revenues.

SPECIALIZATION:

Geography	Approximate % 1992	1997
U.S.	45	41
Europe and Africa	39	41
Canada	-	-
Other (Asia)	16	18
TOTAL	100	100

Industry (if under 3% put in "other")	**Approx. %**	**Trends**
Manufacturing	17	Slightly increasing
Financial	23	Slightly decreasing
Telecomm, transportation and utilities	17	
Wholesale/retail and other services	16	Slightly increasing
Government	25	Decreasing
Other	2	Flat
TOTAL	**100**	

Technical Specialties:

Communications	
Network Integration	Specialty
Distributed/LAN	
Database	
CASE	
Transaction processing	Specialty
Data collection	
Other	

ACQUISITIONS/ALLIANCES

One of its many alliances than can be used to support services is an agreement with Novell to knit together network offerings. Other alliances supporting services include those with Ross, Andersen Consulting.

ORGANIZATION

Sales organization and staff support in regional and local offices sell and provide SI and professional services. Specialized technical and industrial staffs supplement local personnel in development and implementation work.

TRAINING

Most personnel have received a wide range of technical, management and industrial courses. One of the capabilities that is emphasized is networking, a capability that has been gaining attention and opportunities for Digital Equipment Corp.

COMPENSATION/INCENTIVES

The Digital Equipment Corporation counts upon the commitment and dedication of staff that has been hired, trained and brought up with DEC. Commissions are not paid for sales, but promotions and new assignments are given as rewards for good performance.

METHOD OF PLANNING FOR GROWTH

Digital Equipment Corporation carries on planning from two perspectives: a technological extension of DEC capabilities aimed at present needs and an examination of user needs from industry research. Digital Equipment Corporation also reviews developments in services such as SI and SO and incorporates them into its services.

STRENGTHS

Strong network and transaction processing capabilities. Well planned use of its capabilities to meet needs of key industries including banking, manufacturing and distribution.

WEAKNESSES

Has not moved rapidly enough to respond to client/server systems. Does not have the intensity in sales and implementation of competitors like EDS and Andersen Consulting. Has used SI/professional services to help leverage sales of hardware and reduced margins to support the sales of hardware.

OVERALL ASSESSMENT

Digital Equipment Corporation is sufficiently large and successful in information technology hardware and software to be able to use professional services and SI work to promote additional sales of hardware and software and to generate additional revenues with those services. It can make those services valuable to users through its technical capabilities and industry/application knowledge.

The net return on these services may be reduced by DEC's and use of them to help the sales of hardware/software, but DEC's use of these services has helped to promote their growth.

Digital Equipment Corporation will not be as successful in the growth rates or margins of return for SI/professional services as some other vendors, but it will continue to be one of the larger vendors of these services.

Top Ten Profile Sheet
CSC - NON-FEDERAL

FINANCIALS:

	Revenues		Profit (before tax)	
	$ Millions	% Increase	$ Millions	% Increase
1991	758	21	58	16
1990	628	30	50	35
1989	483	56	37	54
1988	310	n/a	n/a	n/a

BUSINESS FOCUS:

Type of Business	Approx. %	Trends
Project-Oriented		
Project Responsibility		
Systems Integration	31	Increasing
Smaller Projects	40	Flat
Task/Contract Programming	6	Flat
Management Consulting	5	Increasing
Other (Network Services/Turnkey)	7	Flat
Outsourcing		
Platform Management/ Applications Management	11	Increasing
Network Supply/Management		
Other		
TOTAL	100%	

SPECIALIZATION:

Geography	Approximate % 1992	1997
U.S.	87	83
Europe and Africa	13	15
Canada	-	-
Other (Asia)		2
TOTAL	100	100

Industry (if under 3% put in "other")	**Approx. %**	**Trends**
Manufacturing	19	Slight increase
Financial	30	Slight decrease
Telecomm, transportation and utilities	23	Not sure
Wholesale/retail and other services	16	Slight increase
Government (eliminated U.S. federal from analysis)		
Other	12	Not sure
TOTAL	**100**	

Technical Specialties:

Communications	
Network Integration	Specialty
Distributed/LAN	
Database	Specialty
CASE	
Transaction processing	
Data collection	
Other	

ACQUISITIONS/ALLIANCES

Most notable acquisitions in the commercial SI/professional services business have been Index Consulting, Computer Partners and Cleveland Consulting. CSC has made other recent acquisitions in these delivery modes including Butler Cox in the U.K. and Paragon in the U.S. (consultant in consumer products industries). Alliances have been made with Digital Equipment Corporation, Mitsui and other firms to expand market coverage.

ORGANIZATION

Two of the three main operating groups provide SI/professional services: the Consulting Group (headquartered in MA), the chief provider of these services, and the Industry Services Group headquartered in El Sequndo. The former concentrates on SI, consulting and other professional services. The latter concentrates chiefly on outsourcing and processing, but provides modification and development work for clients. Sales and support people for activities work out of CSC offices (200 domestic offices and offices of overseas subsidiaries). There has been an attempt to emphasize teams more.

TRAINING

CSC has a large scale training capability that addresses technology, management and industry subjects. Many members of the Consulting Group were hired for their knowledge and do not require a full program of training.

COMPENSATION/INCENTIVES

The Consulting Group awards commission-like bonuses to sales personnel. Performance on projects can also lead to bonuses.

METHOD OF PLANNING FOR GROWTH

CSC has acquired the capabilities and industry strengths that have proved attractive in the commercial SI/professional services environment and is using its capabilities to manage large information services organizations to address the market. Additional industry strength and industry knowledge has been added through acquisition.

STRENGTHS

Through Index, CSC has strong consulting capabilities that can appeal to strategic planning needs of prospects. Also, Index, Partners and Cleveland Consulting, as well as CSC, have demonstrated capabilities in performing large systems projects.

WEAKNESSES

Margins have been low compared to major competitors. When CSC/Index obtains real strategic planning project some clients have wanted to award follow on work to another vendor to keep CSC/Index disinterested in regard to planning. There have been continuing problems in getting merged companies to work together smoothly.

OVERALL ASSESSMENT

CSC is the largest, independent provider of information services. It has the size, reputation and capabilities to continue in the business, but its margins will have to improve in order to remain at the top level of competition. It has shown the capacity to analyze market changes and find partners or acquisitions that can help it to move ahead.

Adjustments may be advisable in its organization and approach to the market to bring the intensity in selling and focus on industry oriented solutions that Andersen Consulting, TSC and EDS, for example, bring to the business. The CSC organization may not create as much team or account oriented strength.

Top Ten Profile Sheet

EDS (Non-GM)

FINANCIALS:

	Revenues		Profit (before tax)	
	$ Millions	% Increase	$ Millions	% Increase
1991	3550	27	570	26
1990	2788	17	450	15
1989	2385	25	390	26
1988	1908	32	310	n/a

BUSINESS FOCUS:

Type of Business	Approx. %	Trends
Project-Oriented		
Project Responsibility	22	
Systems Integration	15	
Smaller Projects		
Task/Contract Programming		
Management Consulting		
Other		
Outsourcing		
Platform Management		
Applications Management	58	
Network Supply/Management		
Other	5	
TOTAL	100%	

SPECIALIZATION:

Geography	Approximate % 1992	1997
U.S.	81	
Europe and Africa	13	
Canada	4	
Other (Asia)	2	
TOTAL	100	100

Industry (if under 3% put in "other")	Approx. %	Trends
Manufacturing	50	Slight decrease
Financial	24	Flat
Telecomm, transportation and utilities	7	Slight increase
Wholesale/retail and other services	7	Slight increase
Government (eliminated U.S. federal from analysis)	12	Slight decrease increasing
Other	2	
TOTAL	**100**	

Technical Specialties:

Communications	
Network Integration	Specialty
Distributed/LAN	
Database	Specialty
CASE	
Transaction processing	Specialty
Data collection	
Other	

ACQUISITIONS/ALLIANCES

- Recent acquisition of McDonnell Douglas SI company (CAD/CAM and other expertise)
- 20% equity in Hitachi
- Creative software systems (Cable TV)
- Entered Europe by acquisition

ORGANIZATION

Sales and development work is organized generally by industry with strong roles for account managers and strong emphasis on team implementation. A separate technical services organization supports 20 information processing centers, worldwide. There are sales and support offices throughout the world selling and performing work.

TRAINING

Heavy emphasis on learning EDS approach to performing work and solving problems. Also, training in technical capabilities although people with needed experience are hired when necessary. EDS is developing training further to be a marketplace force.

COMPENSATION/INCENTIVES

Commissions are paid in the 20-30% range and bonus are paid in relation to meeting objectives.

METHOD OF PLANNING FOR GROWTH

EDS emphasizes planning. Industry targets and types of jobs are selected as much as possible. Employees are trained to perform in ways that guaranty quality results and growth. EDS aims at obtaining larger jobs at top companies, and will approach prospects with ideas for improving revenues or performance through the use of systems.

STRENGTHS

- EDS can bring highly motivated and trained teams to work on problems.
- EDS knows how to identify targets for systems work and to sell large contracts.
- EDS has considerable knowledge and capabilities in certain industries.

WEAKNESSES

- EDS is not as flexible in adapting to changing needs as some other competitors are, according to users.
- EDS may have problems with new working environments where multiple user groups are planning for the use of client/server capabilities and ideas have to be blended together.

OVERALL ASSESSMENT

EDS will continue to be major force in information services based on their ability to identify, sell and perform sizable jobs. There will be continuing need for their capabilities, even if competitors find ways to be more responsive to the changing use of information systems.

The EDS growth rate will fall as a result of competition, but still stay comfortably above industry averages.

Top Ten Profile Sheet
ANDERSEN CONSULTING

FINANCIALS:

	Revenues		Profit (before tax)	
	$ Millions	% Increase	$ Millions	% Increase
1991	2260	20	455	18
1990	1880	30	385	26
1989	1450	29	305	22
1988	1199	60	250	n/a

BUSINESS FOCUS:

Type of Business	Approx. %	Trends
Project-Oriented		
Project Responsibility		
Systems Integration	63	
Smaller Projects	30	
Task/Contract Programming		
Management Consulting		
Other: Applications Software	4	
Systems Software	1	
Outsourcing		
Platform Management		
Applications Management	2	
Network Supply/Management		
Other		
TOTAL	100%	

SPECIALIZATION:

Geography	Approximate % 1992	1997
U.S.	48	44
Europe and Africa	40	43
Canada	2	3
Other (Asia)	10	11
TOTAL	100	100

Industry (if under 3% put in "other")	Approx. %	Trends
Manufacturing	37	Decreasing slightly
Financial	26	Flat
Telecomm, transportation and utilities	14	Increasing slightly
Wholesale/retail and other services	8	Increasing slightly
Government	12	Decreasing
Other	3	Flat
TOTAL	**100**	

Technical Specialties:

Communications

Network Integration	Specialty
Distributed/LAN	Specialty

Database

CASE	Specialty

Transaction processing

Data collection

Other: Imaging - Centers that demonstrate working models of wholesale, retail, medical and manufacturing (CIM environments) that utilize advanced technology.

ACQUISITIONS/ALLIANCES

Various alliances and marketing agreements. Alliance with Microsoft to provide services via client/server applications. Alliance with Xerox to provide publishing services. Re-marketer of Sun workstations and software. Business integration program has resulted in alliances with many hardware and software vendors.

ORGANIZATION

Consulting practice organization that includes an associate partner level as a step to partnership work is organized into systems integration, systems management, strategic, and systems management services that are provided through 151 offices worldwide.

TRAINING

High level of training ($7200 per consultant in 1991). More than 250 courses are available. A consultant may have taken over 1000 hours of training before becoming an associate partner. User training includes an important new offering supporting use of client/server technology.

COMPENSATION/INCENTIVES

Partners earn about $200,000; associate partners earn about $125,000 as a base. Non-partners can be paid 20 to 40% performance bonus in good years.

METHOD OF PLANNING FOR GROWTH

Andersen consulting focuses on improving its people, its use of technology, its knowledge of and ability to use technology in target markets, and alliances to extend its penetration of target markets.

STRENGTHS

Centers that can demonstrate working solutions to industry problems.

MAC PAC software products that ensure continuing assignment in manufacturing according to TSC.

Rapid assessment and use of new technology like client/server.

Contacts and organization as well as consulting experience inherited from parent organization.

WEAKNESSES

A number of employees are more anxious about moving up to associate partner rather than staying in the trenches. In order to overcome high domestic bids in some situations, Andersen has had to use contract and offshore personnel, that has been harder to control.

OVERALL ASSESSMENT

Andersen Consulting is a powerful SI/professional services competitor with knowledge of how to use technology and participate in technology transfer.

There can be challenges as Andersen extends its techniques into new targets industries, but its willingness to explore and bring new technology to clients should bring continued success. Its experience in consulting and problem solving as well as the contacts gained from its parent together with industry and technological knowledge make it one of the strongest competitors.

Top Ten Profile Sheet
ERNST & YOUNG

FINANCIALS:

	Revenues		Profit (before tax)	
	$ Millions	% Increase	$ Millions	% Increase
1991	551	12	105	11
1990	490	9	95	12
1989	450	43	95	41
1988	315	30	60	n/a

BUSINESS FOCUS:

Type of Business	Approx. %	Trends
Project-Oriented		
Project Responsibility		
Systems Integration	35	Increasing
Smaller Projects	45	Decreasing
Task/Contract Programming	7	Decreasing
Management Consulting	5	Increasing
Other (Software products)	7	Flat
Outsourcing		
Platform Management		
Applications Management	1	Increasing
Network Supply/Management		
Other		
TOTAL	100%	

SPECIALIZATION:

Geography	Approximate % 1992	1997
U.S.	64	56
Europe and Africa	23	28
Canada	-	-
Other	13	16
TOTAL	100	100

Industry (if under 3% put in "other")	Approx. %	Trends
Manufacturing	17	Increasing slightly
Financial	30	Decreasing slightly
Telecomm, transportation and utilities	16	Not sure
Wholesale/retail and other services	15	Increasing slightly
Government	12	Decreasing slightly
Other	10	Decreasing slightly
TOTAL	**100**	

Technical Specialties:

Communications	
Network Integration	
Distributed/LAN	
Database	Specialty
CASE	Specialty
Transaction processing	
Data collection	
Other: Quality improvement	Specialty

ACQUISITIONS/ALLIANCES

Alliance with Dun & Bradstreet Software as a preferred installer.

ORGANIZATION

SI and professional services are sold and delivered through 100+ locations, worldwide with the aid of two technology centers than can bid on and handle special jobs related to their areas of expertise. One center (Massachusetts) is chiefly devoted to IT strategy and CASE and the other in Texas is devoted chiefly to IT delivery. The company serves clients through a consulting practice approach in which partners run teams that are assigned to accounts or industries.

TRAINING

Comprehensive training in IT technology and consulting (practice) management as well as in vertical markets and business. IT training emphasizes strategic planning, CASE, decision support, workstations and other topics that E & Y uses to attract business.

COMPENSATION/INCENTIVES

Sales commissions and bonuses are used to motivate staff. The possibility of becoming a partner and the rewards of partnership are used at upper levels. E & Y also promotes their approach to the sale of IT services as a plus to encourage staff performance.

METHOD OF PLANNING FOR GROWTH

Ernst & Young has used long term strategies such as CASE and information engineering, redevelopment, and strategic planning as a backbone to add services to and a means of attracting business. These emphases are used as topics in contact work and ways of providing a common orientation for planning the expansion of business through the network of sales offices.

STRENGTHS

- Knowledge of certain technological capabilities.
- Contacts, organization and methods of providing accounting and consulting work gained in the past.
- In depth knowledge of finance, distribution and manufacturing.

WEAKNESSES

- Has relied on outside sources to provide new technological initiatives (even if they were acquired).
- Has not developed unique combinations of industry and technical knowledge as EDS, Andersen Consulting, and TSC have.

OVERALL ASSESSMENT

Ernst and Young has been well positioned, with the right technology, industry knowledge and contacts to take advantage of the need in many large organizations to rebuild major applications and change the way that they use technology. Ernst & young will take advantage of this continuing opportunity and add new areas of expertise to meet prospect needs, but they will probably not achieve the levels of success of EDS or Andersen or TSC in developing solutions that uniquely exploit the use of technology to meet industry problems.

Top Ten Profile Sheet

TECHNOLOGY SOLUTIONS (TSC)

FINANCIALS:

	Revenues		Profit (before tax)	
	$ Millions	% Increase	$ Millions	% Increase
1991	63	31	13	30
1990	48	45	10	43
1989	33	n/a	7	n/a
1988	n/a	n/a	n/a	n/a

BUSINESS FOCUS:

Type of Business	Approx. %	Trends
Project-Oriented		
Project Responsibility		
Systems Integration	95	Few changes
Smaller Projects	2	
Task/Contract Programming		
Management Consulting		
Other		
Outsourcing		
Platform Management		
Applications Management		
Network Supply/Management		
Other (Hardware/Software)	3	
TOTAL	100%	

SPECIALIZATION:

Geography	Approximate % 1992	Approximate % 1997
U.S.	99	90
Europe and Africa	1	8
Canada	-	-
Other (Asia)		2
TOTAL	100	100

Industry (if under 3% put in "other")	Approx. %	Trends
Manufacturing	89	Relative decrease
Financial	9	Increasing
Telecomm, transportation and utilities		
Wholesale/retail and other services		
Government		
Other	2	Increasing
TOTAL	**100**	

Technical Specialties:

Communications

Network Integration

Distributed/LAN Specialty

Database

CASE

Transaction processing

Data collection

Other

ACQUISITIONS/ALLIANCES

TSC will acquire the staff of Clarkston Potomac who specializes in supporting SAA software. TSC has been a subcontractor to IBM.

ORGANIZATION

Divided into three groups (manufacturing, financial services and consumer products) that concentrate on market targets. Organized like a consulting (or Big 6) practice with vice presidents including senior project managers chiefly responsible for sales and implementation of teams that they manage.

TRAINING

Has relied on hiring people well experienced in the vertical markets and technology of interest to the company. On the job exposure and selected training are used for further development.

COMPENSATION/INCENTIVES

Project managers are paid at the highest rate in the business (average near $300,000) but they and all employees work with 10-25% of salary "at risk" if net income growth does not meet targets. If it exceeds targets, stock options are awarded based on performance. The result is a highly motivated staff.

METHOD OF PLANNING FOR GROWTH

The incentive plan outlined above is one ingredient of TSC planning. A second is preparing in terms of finances and technological strength to be able t perform large SI contracts in selected areas of business, where high margins can be secured. A third, and related, aim is to leverage knowledge and experience with MRPII systems in two of its major target markets, manufacturing and consumer products.

STRENGTHS

TSC has proved to have considerable strength in its ability to provide incentive to people and in its knowledge of how to manage and perform SI projects.

Its knowledge of MRP II products has also been reflected in projects.

WEAKNESSES

The percentage of its business which is based on large projects is a risk, although TSC is prepared to cut back personnel rapidly. Its new approach to providing personnel with incentive has risk in handling of some individuals. Market focus is not broad.

OVERALL ASSESSMENT

TSC has an energetic and enthusiastic approach to business combined with competence and methodology. It appears to be headed for rapid growth despite occasional contract losses and adjustments in entering new fields.

Top Ten Profile Sheet
Cap Gemini Sogetti

FINANCIALS:

	Revenues		Profit (before tax)	
	$ Millions	% Increase	$ Millions	% Increase
1991	1176	5	101	(16)
1990	1685	30	117	19
1989	1296	33	99	46
1988	975	39	67	44

BUSINESS FOCUS:

Type of Business	Approx. %	Trends
Project-Oriented		
Project Responsibility		
Systems Integration	11	Increasing
Smaller Projects	21	Slight decrease
Task/Contract Programming	52	Decreasing
Management Consulting	2	Increasing
Outsourcing		
Platform Management		
Applications Management	6	Increasing
Network Supply/Management		
Other (Software products)	8	Flat
TOTAL	100%	

SPECIALIZATION:

Geography	Approximate % 1992	1997
U.S.	11	
Europe and Africa	87	
Canada	-	-
Other (Asia)	2	
TOTAL	100	

Industry (if under 3% put in "other")	Approx. %	Trends
Manufacturing	22	Increasing
Financial	32	Decreasing
Telecomm, transportation and utilities	15	Increasing slightly
Wholesale/retail and other services	15	Flat
Government	7	Decreasing
Other	9	Flat
TOTAL	**100**	

Technical Specialties:

Communications	
Network Integration	Specialty
Distributed/LAN	
Database	Specialty
CASE	Specialty
Transaction processing	
Data collection	
Other	

ACQUISITIONS/ALLIANCES

Recent alliance with CTG. Acquisitions of Hosbyns in the UK, SCS in Germany and an alliance with Volmac in Benelux have added to European strengths.

ORGANIZATION

CGS combines an approach of promoting close working relations between clients and sales/service staffs through decentralized operations together with corporate assistance and guidance through an international sales development activity aimed at leading multinational companies and an international technical support capability that provides common approaches to methodology and quality.

TRAINING

Training is mostly on-site and is oriented to the technology and capabilities being promoted in current work. Special training programs are set up to address management, business, team effectiveness, new technical interests and other topics on an ad hoc basis.

COMPENSATION/INCENTIVES

Sales commissions of up to 20% are used in most offices to provide incentive to sales representatives. Bonuses and promotions reward good performance. CGS also makes an effort to incest people through the image of the company as an excellent and rewarding environment in which to work.

METHOD OF PLANNING FOR GROWTH

CGS has concentrated on incorporating companies and adding competence in areas such as CIM, System Conversion, and CASE, which can fuel its growth of information services, particularly SI and professional services. In addition, it has worked on methods of stimulating and ensuring common genera directions in its separate operations.

STRENGTHS

- Recognizing the importance of SI in the marketplace and adding internal strength to sell and support it
- Developing industry contacts and knowledge that could be used for continuing assignments
- Developing an image of technological leadership that has been helpful in opening doors

WEAKNESSES

Performance of CGA has been weak. Has not had the depth of industry or technical knowledge to be a leading force in certain industry situations. Has not fully blended or resolved the differences in marketing and work methods used by Hoskyns, CGA, United Research and other units.

OVERALL ASSESSMENT

The strong presence that CGS has developed in the European market (many countries and wide array of capabilities) put it in a position to grow SI, SO and contract services at an attractive rate. Its industry strengths in manufacturing and finance will bring in jobs from Russia (CIS) and Eastern Europe as well.

The attention being given to strengthening the US component, CGA, through a build up of consulting, SO and SI capabilities may not make CGA one of the top performers, but it will help support activities.

CGS will continue to be one of the leading worldwide competitors based on its plans and market penetration in Europe. Its low margins and lack of team or practice-oriented business strength limit its ability to expand at the rate of Andersen Consulting or EDS, but it is taking steps to address these issues.

Top Ten Profile Sheet

PEROT SYSTEMS

FINANCIALS:

	Revenues		Profit (before tax)	
	$ Millions	% Increase	$ Millions	% Increase
1991	150	66	31	63
1990	90	125	19	137
1989	40		8	
1988	n/a	n/a	n/a	n/a

BUSINESS FOCUS:

Type of Business	Approx. %	Trends
Project-Oriented		
Project Responsibility		
Systems Integration	35	
Smaller Projects		
Task/Contract Programming		
Management Consulting		
Other		
Outsourcing		
Platform Management		
Applications Management	65	
Network Supply/Management		
Other		
TOTAL	100%	

SPECIALIZATION:

Geography	Approximate % 1992	1997
U.S.	98	88
Europe and Africa	2	9
Canada	-	1
Other (Asia)		2
TOTAL	100	100

Industry (if under 3% put in "other")	Approx. %	Trends
Manufacturing	10	Increasing
Financial	35	Flat
Telecomm, transportation and utilities	-	Increasing
Wholesale/retail and other services (including medical)	38	Decreasing
Government		Uncertain
Other	10	Not sure
TOTAL	**100**	

Technical Specialties:

Communications	
Network Integration	Specialty
Distributed/LAN	
Database	
CASE	
Transaction processing	
Data collection	
Other: Image processing	Specialty

ACQUISITIONS/ALLIANCES

ORGANIZATION

Organization is divided into groups serving target markets. Within those groups, the organization is divided into teams dedicated to certain client and prospect accounts.

TRAINING

Have acquired very trained personnel. Will strengthen training to address new technology.

COMPENSATION/INCENTIVES

Bonus and commissions to stimulate sales and encourage performance. Esprit de corps is also used to simulate performance.

METHOD OF PLANNING FOR GROWTH

- Using same combination of technical and industry knowledge and intensity in selling benefits of technology that EDS uses.
- Targeting markets that offer the most opportunity in relation to its methods.
- Targeting prospects that could have large jobs and approaching them with ideas for gaining benefits through automation.
- Relying on hiring and instilling the motivation and knowledge required to serve accounts successfully.

STRENGTHS

Using a tested approach for gaining and performing business that combines intense and dedicated work with a reliance on technical knowledge.

Knowledge and experience of personnel that have joined company in technology and target markets

Have been encouraged by clients to take on systems operations business.

Perot name has proved to be a strength.

WEAKNESSES

Probably not as innovative as companies such as Andersen Consulting or TSC in developing products or technological approaches t meet classes of industry problems. May not be flexible in working with end user environments.

OVERALL ASSESSMENT

The company has successfully taken off and started to grow, but it will have to develop more of a plan for future growth and this may cause problems in market selection or development of technical resources.

Top Ten Profile Sheet
Oracle

FINANCIALS:

	Revenues		Profit (before tax)	
	$ Millions	% Increase	$ Millions	% Increase
1991	239	20	42	11
1990	200	39	38	27
1989	154	28	30	
1988	120	n/a	n/a	n/a

BUSINESS FOCUS:

Type of Business	Approx. %	Trends
Project-Oriented		
Project Responsibility		
Systems Integration	43	
Smaller Projects	47	
Task/Contract Programming		
Management Consulting (Prof. Services)	10	
Other		
Outsourcing		
Platform Management		
Applications Management		
Network Supply/Management		
Other		
TOTAL	100%	

SPECIALIZATION:

Geography	Approximate % 1992	1997
U.S.	38	35
Europe and Africa	50	49
Canada	-	2
Other (Asia)	12	14
TOTAL	100	100

Industry (if under 3% put in "other")	Approx. %	Trends
Manufacturing	15	Increasing
Financial	20	Increasing
Telecomm, transportation and utilities	10	Increasing
Wholesale/retail and other services	10	Increasing
Government	40	Decreasing
Other	5	Flat
TOTAL	**100**	

Technical Specialties:

Communications	
Network Integration	
Distributed/LAN	
Database	Specialty - major emphasis
CASE	Specialty
Transaction processing	Specialty
Data collection	
Other	

ACQUISITIONS/ALLIANCES

Alliances with many hardware vendors including AT&T, Bull, Unisys, Convex, Data General, Unisys, Texas Instruments, Toshiba.

ORGANIZATION

Direct sales force in the U.S, based in 40 metropolitan offices. International market is covered by wholly owned subsidiaries and independent distributors. This sales organization is supplemented with local SI, consulting, training people based on the volume of business. Additional resources are available from the home office or sites with large staff pools.

TRAINING

Training in Oracle software products and in handling consulting assignments (many of which are based on Oracle software, previous experience in industry markets and software engineering specialty).

COMPENSATION/INCENTIVES

Salary plus commission. All employees are given incentive with the idea that the rapid growth of Oracle as a company (and its stock) provide significant opportunities.

METHOD OF PLANNING FOR GROWTH

Plan to keep leveraging the use of data management expertise in relation to industry solutions to promote SI/professional services business. Also plan to promote situations in which SI and professional services can be used with Oracle software to provide synergy such as OLTP systems in manufacturing, finance and distribution markets; industry solutions that make use of past experience (e.g. for banking); and the use of CASE tools in conjunction with Oracle environments.

STRENGTHS

- Degree to which Oracle DB products are in use
- Knowledge of industry markets
- Experience with OLTP and CASE tools

WEAKNESSES

- Dependence on continuing improvements in and popularity of Oracle software products.
- Requirement to keep supporting older clients, who may not want to upgrade

OVERALL ASSESSMENT

Oracle has developed an image based on the use of its software products that will continue to promote the use of its SI and professional services. Oracle has also developed strengths to meet a set of the most significant current problems in application development, the use of distributed data and use of advanced development tools together with data management expertise. These strengths have been supplemented with industry and application knowledge that provides Oracle with the opportunity for further growth.

Oracle will need to expand its capabilities in technology, however, to continue its growth in the future.

Adjustments may be advisable in its organization and approach to the market to bring the intensity in selling and focus on industry oriented solutions that Andersen Consulting, TSC and EDS, for example, bring to the business. The CSC organization may not create as much team or account oriented strength.

SEPTEMBER 1992

ANALYSIS OF "TOP TEN" PROFESSIONAL SERVICES FIRMS

INPUT

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I
Background and Methodology

A
Background

INPUT was engaged in June 1992 to help CGI develop a stragetic plan to maximize growth and profitability. As part of INPUT's assistance, INPUT was to identify ten professional services firms that INPUT considers the most successful in the marketplace. CGI was especially interested in the critical success factors associated with these firms.

INPUT and senior CGI staff met in a four-hour interactive session on August 6, 1992 to review INPUT's findings and conclusions. Later that day INPUT made an abbreviated version of the presentation to CGI's Board of Directors.

This report provides a summary of critical success factor findings and contains detail on each firm in the Appendices.

B

Methodology

INPUT set the following hurdles for a company to be included in the top ten list:

A compound annual growth rate (CAGR) for the period 1988-1991 of 15%, combined with consistent profitability.

OR

An average margins (i.e., profit before tax - PBT) during this period of at least 15%.

One immediately interesting finding that no firm qualified on the basis of the second hurdle alone. That is, the firms with high margins also grew fast (the reverse was not necessarily true.)

Exhibit I-1 shows the firms that qualified for inclusion in the top ten.

Several other firms (e.g., other Big 6 firms) would have qualified also; however, INPUT wanted to have a representative group of firms. However, INPUT does not believe that more than 20 firms would have qualified.

Note that only one firm not based in the U.S. is on this list. This was not intentional; in fact, INPUT would have searched to find more non-U.S. firms for the list.

After the firms were selected detailed profiles were developed covering objective factors such as financials, business focus, and geographic, industry and technical specialization; INPUT also summarized each firm's position concerning acquisition/alliances, organization, training, compensation/incentivies, method of planning for growth, strengths, weaknesses and an overall assessment. This material is contained in an appendix for each firm.

Much of INPUT's qualitative assessment was spent on determining the critical success factors for each firm. The presentation -- as well as this report -- was focussed on these success factors.

C

Structure of This Report

This report is organized into the following sections:

An overview of the structure of the professional services/systems integration marketplace: This is important from the standpoint of both definitions as well as understanding some of the principal drviers of growth and margins.

The primary factors defining a "top ten" firm. These factors include:

- Size, growth and profitability
- Geographic and industry focus
- Individual success factors
- An analysis of success factors

Ten appendices with additional detail for each firm.

EXHIBIT I-1

"Top Ten" Professional Services Firms

Andersen Consulting

Cap Gemini Sogeti (CGS)

Computer Science Corp. (CSC)
Non-Federal operations

Digital Equipment Corp. (DEC)

Electronic Data Systems (EDS)
Non-General Motors operations

Ernst & Young (E & Y)

International Business Machines (IBM)

Oracle Complex Systems

Perot Systems

TSC, Inc

Note: All data and analysis is limited to these companies' professional services/systems integration business, unless otherwise specified.

II
The Professional Services Market

It is important to put the professional services market into context, in order to understand the top ten and their strategies as well as for helping to form CGI's own strategies.

This chapter provides an overview of the structure of the professional services business and expected growth and profitability benchmarks.

A
Professional Services and Systems Integration

The term "professional services" is sometimes used to refer to "standalone" professional services and sometimes to also include systems integration (SI) activities. This study has used professional services in the latter, more inclusive sense. (Note, though, that when INPUT's standard materials refer to "professional services" they mean standalone professional services.)

Exhibit II-1 contrasts the differences between the two activities.

The typical business opportunity often does not fall tidily into one category or another. The two categories are more likely to represent ends of a continuum, with considerable activity in a grey area.

Most projects usually have a preponderance of characteristics which place them into either "systems integration" or "standalone professional services".

However, differences between the two categories increasingly has very real business meaning in terms of potential growth and profitability opportunities.

B

Growth And Profitability Benchmarks

The U.S. standalone professional services market is quite large, almost $18 billion in 1991, but is expected to grow at only a 9% rate over the next five years (see Exhibit II-2). Since INPUT's growth rates include an inflation factor of about 4%, this means a 5% real growth rate.

This is contrasted to an underlying growth rate of twice that for the systems integration market (Exhibit II-3), although starting from a base of about half the size of the standalone professional services market.

Some components of the professional services market will still have respectable growth rates, such as consulting (see Exhibit II-4). However, software development/maintenance growth will barely keep ahead of inflation.

The professional services component of systems integration will grow even faster than the systems integration overall (Exhibit II-5).

One of the most important differences between professional services categories are differences in the potential margins. Exhibit II-6 shows a range of margins, ranging from under 5% in government projects to 30% in commercial systems integration projects.

The government margins are artificially constrained by regulation; true margins would be somewhat higher.

The ranges represent the variation between average companies and what very well run organization can hope to attain. The high end represents a realistic objective to aim for.

Note that programming/systems development has both the lowest margins and the lowest expected growth. This is reasonable because low growth with a relatively fungible offerings generally means increased price competition.

Systems integration on the other hand offers far more opportunities for differentiation, mainly from the standpoint of providing a business-oriented solution. Obviously, though, there is also greater risk assumed by the vendor in return for the higher margins.

III
"Top Ten" Analysis: Primary Factors

The primary factors defining a "top ten" firm. These factors include:

Size, growth and profitability

Geographic and industry focus

Individual success factors

An analysis of success factors

Appendices with additional detail for each firm are included in this report.

A
Overview: Size, Growth and Profitability

Size, per se, is not a significant factor in qualifying to be a top ten firm. As shown in Exhibit III-1, the size of professional services/systems integration revenues ranges from IBM at over $5.4 billion in 1991 to TSC at $63 million. (Note: The revenue for systems integration does not include revenues from hardware or software products; it represents pure services revenues.)

Exhibit III-2 contrasts the growth rates and the average pre-tax margins for 1988-91.

The median growth rate was 28% and median margin was 18%.

Several firms had much higher growth rates but these each had special factors behind them:

- DEC had not been correctly counting all professional services-related revenues in the late 1980s; it is not possible at this point to adjust these years. However, DEC does have a true professional services growth rate in excess of 30% annually.

- Perot Systems and TSC growth rates are both affected by their being relatively recent start ups. However, their current growth rates are still in excess of 30%. It is important to understand that there is still an opportunity for new startups to make their marks quickly.

The firms with lower margins fell into two groups:

- IBM and DEC are still trying to deal with their generally high overheads, including higher than average personnel costs.

- CSC and CGS on the other hand are still supplying considerable amounts of lower margin applications development services.

Exhibit III-3 graphs growth rates vs. average margins. The scatter diagram shows that there is no simple relationship between growth and margins. However, it does indicate that there is not necessarily a profit penalty paid for high growth. It should be stressed here that these figures are for top companies; most average companies find it difficult to combine sustained growth and profitability.

This last observation is an important one because it is often believed that a "reinvestment" period is necessary to support high growth. These figures show that in a services business this is not always true.

B

Geographic and Industry Focus

Exhibit III-4 summarizes the geographic distribution of the top firms' professional services/systems integration business.

Only CGS does not have a significant portion of its business in the U.S. This is a situation that they have publicly stated they intend to change.

IBM, DEC and Oracle do less than half of their business in the U.S.; this largely reflects the worldwide scope of their product business. Andersen, on the other hand, has always aimed at having international scope.

Non-U.S. business generally still means Europe, although growth rates in general for the Pacific Rim are high (but starting from a low base).

EDS, TSC and Perot both illustrate that a U.S.-centered business can be quite successful

Exhibit III-5 shows the distribution of business across five major verticals for each of the top ten.

Firms like IBM, DEC, CSC and CGS tend to be active in most verticals. This is partly a result of having enough critical mass to actually be able to focus on a number of verticals and partly (especially CGS) performing relatively undifferentiated work, such as applications development.

Other firms, such as EDS, Andersen, Perot and, especially, TSC do focus on particular verticals and subverticals. In the case of TSC, this has been one of the principal reasons for their success

C

Critical Success Factor for Individual Firms

This section provides INPUT's evaluation of the most significant factors behind the success of individual firms.

1. IBM

IBM's sizable, global presence is a strong factor supporting large scale projects, particularly international ones.

IBM's installed base also helps to provide an assurance of service and continuing presence.

The experience in systems integration (SI), which IBM has developed over a period of years, is reflected in its ability to market and manage large, multi-vendor projects. This experience also helps IBM to be considered for new projects.

Knowledge of IBM equipment should not be overlooked as a success factor. This provides IBM the opportunity to be considered or participate in many, large jobs.

2. EDS (non-GM business)

The strength of EDS in SI is marked by its ability to anticipate and support the needs of large organizations.

EDS has an objective to learn as much as possible about the areas of vertical markets that it will focus on. This was made possible by their 1989 reorganization.

The strength that EDS has gained over time in outsourcing has proven to be an important asset as this technique has gained popularity.

In Europe, EDS has gained needed strength for developing the market through selected acquisitions.

3. Andersen Consulting

Andersen has important global strength through its information services business as well as its auditing activities.

Andersen's SI strength has been developed through assignments as well as a set of products that help to support SI work.

The vertical focus of the firm has been supported with demonstrations that help to convince prospects about Andersen's knowledge and methods of addressing problems.

Management provides unusually strong central direction in a partnership environment.

The matrixed organization of Andersen allows technical specialties and industry expertise to be brought to bear on SI and other projects.

4. Digital Equipment Corporation

DEC has sufficient presence in global markets as well as a worldwide level of installed equipment that can provide reassurance of support and confidence in problem resolution.

DEC's experience with SI in a number of industries and its knowledge of transaction processing data management and open systems provide strength in SI marketing.

5. CAP Gemini Sogeti

CGS has shown the ability to build a company and develop professional services/SI strengths through acquisitions. In addition to its acquisition of SESA in France, CGS has gained market share and capabilities in the U.S., West Germany, Italy, and other countries.

The acquisitions of CGS, including its purchase of United Research and the MAC Group, demonstrates an ability in acquisition management. The components support long range CGS goals and contribute their unique strengths.

6. CSC (Non-federal)

CSC has developed and acquired the ability to sell and manage large multivendor SI projects and the industry/application knowledge to handle projects in key market areas.

CSC has coordinated different orientations toward professional services/SI work (consulting of Index, industry skills of Partners, SI marketing of Cleveland consulting) while absorbing firms. This demonstrates both strength in management practices similar to a Big 6 firm and strength in acquisitions management.

The acquisitions that CSC has made have given the company the consulting capability needed to help sell and initiate large, profitable contracts as well as t administer and manage them.

7. Ernst & Young

Ernst & Young has gained a global presence and reputation through its auditing work that has been highly useful in gaining prospects and helping to close information services contracts.

Through internal training and alliances, Ernst & Young has developed the project management and industry knowledge and skills to perform SI work.

The vertical knowledge that E & Y has gained in finance, banking/finance and other industries has proved to be critical in gaining work.

E & Y has also managed to support a decentralized type of operation that has encouraged separate offices to develop and use strengths to gain SI and professional services work.

8. Oracle

The global business and installed base of Oracle accounts provides an image of having service nearby and assuring prospects that Oracle will continue to be in business. Both are necessary to support marketing for large SI and professional services contracts.

The strength in running large SI contracts which Oracle acquired and supplement through contracts to develop and modify data management systems for a number of industries is a strong factor in its current performance. The widespread use of Oracle data management products has become, by itself, a critical factor in view of the widespread use of these products.

9. Perot Systems

Perot has capitalized on the knowledge of employees who formerly worked for EDS to provide the marketing and large scale project management capabilities required for success.

The management practices of Perot, which support dedicated efforts by a team, are also a key success factor for the firm.

Perot also has the ability and experience to develop the interests of prospects and clients in application management.

10. TSC

TSC has sought and gained personnel strengths in SI that have been critical in selling and performing projects.

The knowledge of certain discrete applications which TSC has is an outstanding demonstration of the role that vertical focus plays.

The management practices of TSC which resemble those of some of the Big 6 enforce the performance of a team and highly motivate team management and performance.

D

An Analysis of Critical Success Factors

Exhibit III-6 summarizes the success factors for individual firms into eight categories.

Every firm except CGS has taken a systems integration approach. With CGS's recent U.S. acquisitions (The MAC Group and United Research), INPUT expects that CGS in North America will be much more systems integration focused in the future.

EDS, Andersen, E & Y and TSC have a very real vertical focus also.

For the firms that have distinctive (although divergent) management practices, these have also proven to be important for their success. It is not going too far to say that any type of distinctive way of managing a professional service business (as long as it is practical) is preferable to generic management practices.

Being global and having an installed base has been helpful for those firms who bring these advantages from other parts of their businesses. For product-oriented companies (IBM, DEC and Oracle), having expertise in their parent company's products has been another advantage.

- It should be stressed, however, that these kinds of "inherited" advantages are no guarantee of success. Many other product-focused companies have tried to piggy-back professional services on top of their existing business without a great deal of success.

Acquisitions play a relatively small role in the success of most of these companies -- CSC is the exception in that it has built up a large U.S. commercial sector business based on their ability to select and manage acquisitions well.

- CGS has recently used acquisitions to reinforce its position in SI and in the U.S. Market

Technical specialties are, in general, less important than vertical specialties for success.

- Major exceptions are EDS and Andersen which pioneered outsourcing and commercial systems integration respectively

- It could be argued, however, that these are more specialties in ways of conducting their business than true technical specialties.

A very real advantage for both EDS and Andersen has been their ability to evolve their organizations to keep up with their growth and changing market requirements. E & Y is one of the few professional services firms to perform well in the traditional decentralized operating environment (and to also absorb the shock of a major merger two years ago).

E

Conclusions and Recommendations

There are several important findings which flow from this analysis:

The professional services/systems integration business is still a very attractive one to be in, in spite of current economic conditions.

Size (at either end of the spectrum) is not absolute bar to success, measured in growth and profitability.

Systems integration services are key to growth and sustained profitability. Systems integration goes hand in hand with specialization, preferably in vertical areas.

The most important conclusion is that there is no single road to success in this business. Each successful firm has chosen their own road and has evolved its own model.

There are certainly lessons that CGI, or any other firm, can gain from studying successful firms.

However, INPUT is expects that other models will be created, depending on the environment for an individual firm as well as the firm's interactions with changing market conditions.

A
IBM (Professional Services & SI)

Exhibit A-1

Financials

	Revenues		Profit (before tax)	
	$ Millions	% Increase	$ Millions	% Increase
1991	5437	32	650	34
1990	4116	32	485	33
1989	3120	28	365	30
1988	2430	n/a	280	n/a

Exhibit A-2

Business Focus

Type of Business	Approx. % *	Trends
Project-Oriented		
Project Responsibility		
Systems Integration	75	
Smaller Projects	23	
Task/Contract Programming		
Management Consulting		
Other (Network Services/Turnkey)	2	
Outsourcing		
Platform Management		
Applications Management		
Network Supply/Management		
Other		
TOTAL	100%	

*Does not include outsourcing, software products, network services or processing.

Exhibit A-3

Specialization

Geography	Approximate % 1992	1997
U.S.	43	41
Europe and Africa	35	36
Canada	4	4
Other (Asia)	18	19
TOTAL	100	100

Comments: Will be participating indirectly in multiple geographic markets through investments and alliances, also.

Industry (if under 3% put in "other")	Approx. %	Trends
Manufacturing	20	Increasing
Financial	17	Flat
Telecomm, transportation and utilities	12	Increasing
Wholesale/retail and other services	13	Flat
Government	22	Decreasing
Cross-industry: (Office, human resources, accounting, planning, engineering/scientific, other)	11	Decreasing
Other	5	Flat
TOTAL	**100**	

Exhibit A-4

Technical Specialties

Communications	
Network Integration	Specialty
Distributed/LAN	Specialty
Database	Specialty
CASE	Specialty
Transaction processing	Specialty
Data collection	
Other	

Acquisitions/Alliances

Many investments in other vendors including AMS, AIC, Knowledgeware.

Alliances and arrangements with Coopers & Lybrand, Apple and many other hardware, services and software vendors

Organization

IBM is now split into manufacturing/development businesses and marketing/services companies. The latter sells and delivers SI and professional services through geographically distributed offices (62 trading areas in the U.S.). The manufacturing/development businesses include some supplementary services capabilities, but most of the strength for doing SI/professional services jobs is housed in the trading areas and profits from the Synergy with the sales personnel and client contacts.

Training

Extensive training that includes local as well as separate facilities. Training includes technical, management, business, industry, problem solving, psychological and other elements to met all needs that can arise. The education and training is shaped to provide all IBM internal and client needs as well as to be a separate marketplace force and revenue contributor.

Compensation/Incentives

Salary plus commission for sales; commission targeted to support company goals. Now have means of sharing rewards across client teams.

Method of Planning for Growth

Improving market response by distributing control of products and services into many separate businesses.

Have organized to bring broad range of support capabilities to sales locations

Programs are in place to help clients move in concert with new IBM information technology plans

Research and investments in other IT vendors helps to ensure that IBM has aid in assessing and responding to emerging needs with appropriate development

Strengths

Comprehensive and thorough approach to marketing and sales as well as research and development

Willing to modify and redirect efforts in software, services or hardware, but will act most rapidly in services as shown by SI and SO businesses

Willing to copy or acquire products and services that meet market needs and to work at improving them

Weaknesses

Reluctant to back pioneering steps or radically new initiatives such as new methods of providing incentive to the SI/professional services area or technology just beyond their planning horizon

Has lagged market in introduction of PCs, workstations, parallel processing, RISC

Absorbing new staff and organization

Overall Assessment

IBM's continuing work with large clients, ongoing research in technology and history of closely tracking the work of competitors and users will make it continue to be a major force in the SI/professional services market. These characteristics may make it a stronger contender in the services market than in some other markets.

IBM will also profit from its flexibility in responding to opportunities. Although it's initiative to sell strategic consulting has not reached the level of success desired, the people selling strategic consulting found ways of bringing IBM into large projects IBM has learned to use temporary agencies to locate needed capabilities for customers.

IBM will not be the leader in providing for solutions in certain industries as Andersen Consulting, TSC or EDS might be, but it will be ready to serve more targets by itself or in concert with many other companies.

B
EDS (Non-GM)

Exhibit B-1

Financials

	Revenues		Profit (before tax)	
	$ Millions	% Increase	$ Millions	% Increase
1991	3550	27	570	26
1990	2788	17	450	15
1989	2385	25	390	26
1988	1908	32	310	n/a

Exhibit B-2

Business Focus

Type of Business	Approx. %	Trends
Project-Oriented		
Project Responsibility	22	
Systems Integration	15	
Smaller Projects		
Task/Contract Programming		
Management Consulting		
Other		
Outsourcing		
Platform Management		
Applications Management	58	
Network Supply/Management		
Other	5	
TOTAL	100%	

Exhibit B-3

Specialization

Geography	Approximate % 1992	1997
U.S.	81	
Europe and Africa	13	
Canada	4	
Other (Asia)	2	
TOTAL	100	

Industry (if under 3% put in "other")	Approx. %	Trends
Manufacturing	50	Slight decrease
Financial	24	Flat
Telecomm, transportation and utilities	7	Slight increase
Wholesale/retail and other services	7	Slight increase
Government (Eliminated U.S. federal from analysis)	12	Slight decrease
Other	2	
TOTAL	**100**	

Exhibit B-4

Technical Specialties

Communications	
Network Integration	Specialty
Distributed/LAN	
Database	Specialty
CASE	
Transaction processing	Specialty
Data collection	
Other	

Acquisitions/Alliances

Recent acquisition of McDonnell Douglas SI company (CAD/CAM and other expertise)

20% equity in Hitachi

Creative software systems (Cable TV)

Entered Europe by acquisition

Organization

Sales and development work is organized generally by industry with strong roles for account managers and strong emphasis on team implementation. A separate technical services organization supports 20 information processing centers, worldwide. There are sales and support offices throughout the world selling and performing work.

Training

Heavy emphasis on learning EDS approach to performing work and solving problems. Also, training in technical capabilities although people with needed experience are hired when necessary. EDS is developing training further to be a marketplace force.

Compensation/Incentives

Commissions are paid in the 20-30% range and bonus are paid in relation to meeting objectives.

Method of Planning for Growth

EDS emphasizes planning. Industry targets and types of jobs are selected as much as possible. Employees are trained to perform in ways that guaranty quality results and growth. EDS aims at obtaining larger jobs at top companies, and will approach prospects with ideas for improving revenues or performance through the use of systems.

Strengths

EDS can bring highly motivated and trained teams to work on problems.

EDS knows how to identify targets for systems work and to sell large contracts.

EDS has considerable knowledge and capabilities in certain industries.

Weaknesses

EDS is not as flexible in adapting to changing needs as some other competitors are, according to users.

EDS may have problems with new working environments where multiple user groups are planning for the use of client/server capabilities and ideas have to be blended together.

Overall Assessment

EDS will continue to be major force in information services based on their ability to identify, sell and perform sizable jobs. There will be continuing need for their capabilities, even if competitors find ways to be more responsive to the changing use of information systems.

The EDS growth rate will fall as a result of competition, but still stay comfortably above industry averages.

C
Andersen Consulting

Exhibit C-1

Financials

	Revenues		Profit (before tax)	
	$ Millions	% Increase	$ Millions	% Increase
1991	2260	20	455	18
1990	1880	30	385	26
1989	1450	29	305	22
1988	1199	60	250	n/a

Exhibit C-2

Business Focus

Type of Business	Approx. %	Trends
Project-Oriented		
Project Responsibility		
Systems Integration	63	
Smaller Projects	30	
Task/Contract Programming		
Management Consulting		
Other: Applications Software	4	
Systems Software	1	
Outsourcing		
Platform Management		
Applications Management	2	
Network Supply/Management		
Other		
TOTAL	100%	

Exhibit C-3

Specialization

Geography	Approximate % 1992	1997
U.S.	48	44
Europe and Africa	40	43
Canada	2	3
Other (Asia)	10	10
TOTAL	100	100

Industry (if under 3% put in "other")	Approx. %	Trends
Manufacturing	37	Decreasing slightly
Financial	26	Flat
Telecomm, transportation and utilities	14	Increasing slightly
Wholesale/retail and other services	8	Increasing slightly
Government	12	Decreasing
Other	3	Flat
TOTAL	**100**	

Exhibit C-4

Technical Specialties

Communications	
Network Integration	Specialty
Distributed/LAN	Specialty
Database	
CASE	Specialty
Transaction processing	
Data collection	

Other: **Imaging** - Centers that demonstrate working models of wholesale, retail, medical and manufacturing (CIM) environments that utilize advanced technology

Acquisitions/Alliances

Various alliances and marketing agreements. Alliance with Microsoft to provide services via client/server applications. Alliance with Xerox to provide publishing services. Re-marketer of Sun workstations and software. Business integration program has resulted in alliances with many hardware and software vendors.

Organization

Consulting practice organization that includes an associate partner level as a step to partnership work is organized into systems integration, systems management, strategic, and systems management services that are provided through 151 offices worldwide.

Training

High level of training ($7200 per consultant in 1991). More than 250 courses are available. A consultant may have taken over 1000 hours of training before becoming an associate partner. User training includes an important new offering supporting use of client/server technology.

Compensation/Incentives

Partners earn about $200,000; associate partners earn about $125,000 as a base. Non-partners can be paid 20 to 40% performance bonus in good years.

Method of Planning for Growth

Andersen consulting focuses on improving its people, its use of technology, its knowledge of and ability to use technology in target markets, and alliances to extend its penetration of target markets.

Strengths

Centers that can demonstrate working solutions to industry problems.

MAC PAC software products that ensure continuing assignment in manufacturing according to TSC.

Rapid assessment and use of new technology like client/server.

Contacts and organization as well as consulting experience inherited from parent organization.

Weaknesses

A number of employees are more anxious about moving up to associate partner rather than staying in the trenches. In order to overcome high domestic bids in some situations, Andersen has had to use contract and offshore personnel, that has been harder to control.

Overall Assessment

Andersen Consulting is a powerful SI/professional services competitor with knowledge of how to use technology and participate in technology transfer.

There can be challenges as Andersen extends its techniques into new targets industries, but its willingness to explore and bring new technology to clients should bring continued success. Its experience in consulting and problem solving as well as the contacts gained from its parent together with industry and technological knowledge make it one of the strongest competitors.

D
Digital Equipment Corporation

Exhibit D-1

Financials

	Revenues		Profit (before tax)	
	$ Millions	% Increase	$ Millions	% Increase
1991	1793	17	145	21
1990	1526	94	120	85
1989	785		65	
1988	n/a	n/a	n/a	n/a

Exhibit D-2

Business Focus

Type of Business	Approx. % *	Trends
Project-Oriented		
Project Responsibility		
Systems Integration	67	
Smaller Projects	32	
Task/Contract Programming		
Management Consulting		
Other (Network Services/Turnkey)		
Outsourcing		
Platform Management		
Applications Management	1	
Network Supply/Management		
Other		
TOTAL	100%	

*Does not include outsourcing, software products, network services or processing.

Exhibit D-3

Specialization

Geography	Approximate % 1992	1997
U.S.	45	41
Europe and Africa	39	41
Canada	-	-
Other (Asia)	16	18
TOTAL	100	100

Industry (if under 3% put in "other")	Approx. %	Trends
Manufacturing	17	Slightly increasing
Financial	23	Slightly decreasing
Telecomm, transportation and utilities	17	
Wholesale/retail and other services	16	Slightly increasing
Government	25	Decreasing
Other	2	Flat
TOTAL	**100**	

Exhibit D-4

Technical Specialties

Communications	
Network Integration	Specialty
Distributed/LAN	
Database	
CASE	
Transaction processing	Specialty
Data collection	
Other	

Acquisitions/Alliances

One of its many alliances than can be used to support services is an agreement with Novell to knit together network offerings. Other alliances supporting services include those with Ross, Andersen Consulting.

Organization

Sales organization and staff support in regional and local offices sell and provide SI and professional services. Specialized technical and industrial staffs supplement local personnel in development and implementation work.

Training

Most personnel have received a wide range of technical, management and industrial courses. One of the capabilities that is emphasized is networking, a capability that has been gaining attention and opportunities for Digital Equipment Corp.

Compensation/Incentives

The Digital Equipment Corporation counts upon the commitment and dedication of staff that has been hired, trained and brought up with DEC. Commissions are not paid for sales, but promotions and new assignments are given as rewards for good performance.

Method of Planning for Growth

Digital Equipment Corporation carries on planning from two perspectives: a technological extension of DEC capabilities aimed at present needs and an examination of user needs from industry research. Digital Equipment Corporation also reviews developments in services such as SI and SO and incorporates them into its services.

Strengths

Strong network and transaction processing capabilities. Well planned use of its capabilities to meet needs of key industries including banking, manufacturing and distribution.

Weaknesses

Has not moved rapidly enough to respond to client/server systems. Does not have the intensity in sales and implementation of competitors like EDS and Andersen Consulting. Has used SI/professional services to help leverage sales of hardware and reduced margins to support the sales of hardware.

Overall Assessment

Digital Equipment Corporation is sufficiently large and successful in information technology hardware and software to be able to use professional services and SI work to promote additional sales of hardware and software and to generate additional revenues with those services. It can make those services valuable to users through its technical capabilities and industry/application knowledge.

The net return on these services may be reduced by DEC's and use of them to help the sales of hardware/software, but DEC's use of these services has helped to promote their growth.

Digital Equipment Corporation will not be as successful in the growth rates or margins of return for SI/professional services as some other vendors, but it will continue to be one of the larger vendors of these services.

E
Cap Gemini Sogetti

Exhibit E-1

Financials

	Revenues		Profit (before tax)	
	$ Millions	% Increase	$ Millions	% Increase
1991	1176	5	101	(16)
1990	1685	30	117	19
1989	1296	33	99	46
1988	975	39	67	44

Exhibit E-2

Business Focus

Type of Business	Approx. %	Trends
Project-Oriented		
Project Responsibility		
Systems Integration	11	Increasing
Smaller Projects	21	Slight decrease
Task/Contract Programming	52	Decreasing
Management Consulting	2	Increasing
Outsourcing		
Platform Management		
Applications Management	6	Increasing
Network Supply/Management		
Other (Software products)	8	Flat
TOTAL	100%	

Exhibit E-3

Specialization

Geography	Approximate % 1992	1997
U.S.	11	
Europe and Africa	87	
Canada	-	
Other (Asia)	2	
TOTAL	100	

Industry (if under 3% put in "other")	Approx. %	Trends
Manufacturing	22	Increasing
Financial	32	Decreasing
Telecomm, transportation and utilities	15	Increasing slightly
Wholesale/retail and other services	15	Flat
Government	7	Decreasing
Other	9	Flat
TOTAL	**100**	

Exhibit E-4

Technical Specialties

Communications	
Network Integration	Specialty
Distributed/LAN	
Database	Specialty
CASE	Specialty
Transaction processing	
Data collection	
Other	

Acquisitions/Alliances

Recent alliance with CTG. Acquisitions of Hosbyns in the UK, SCS in Germany and an alliance with Volmac in Benelux have added to European strengths.

Organization

CGS combines an approach of promoting close working relations between clients and sales/service staffs through decentralized operations together with corporate assistance and guidance through an international sales development activity aimed at leading multinational companies and an international technical support capability that provides common approaches to methodology and quality.

Training

Training is mostly on-site and is oriented to the technology and capabilities being promoted in current work. Special training programs are set up to address management, business, team effectiveness, new technical interests and other topics on an ad hoc basis.

Compensation/Incentives

Sales commissions of up to 20% are used in most offices to provide incentive to sales representatives. Bonuses and promotions reward good performance. CGS also makes an effort to incest people through the image of the company as an excellent and rewarding environment in which to work.

Method of Planning for Growth

CGS has concentrated on incorporating companies and adding competence in areas such as CIM, System Conversion, and CASE, which can fuel its growth of information services, particularly SI and professional services. In addition, it has worked on methods of stimulating and ensuring common genera directions in its separate operations.

Strengths

Recognizing the importance of SI in the marketplace and adding internal strength to sell and support it

Developing industry contacts and knowledge that could be used for continuing assignments

Developing an image of technological leadership that has been helpful in opening doors

Weaknesses

Performance of CGA has been weak. Has not had the depth of industry or technical knowledge to be a leading force in certain industry situations. Has not fully blended or resolved the differences in marketing and work methods used by Hoskyns, CGA, United Research and other units.

Overall Assessment

The strong presence that CGS has developed in the European market (many countries and wide array of capabilities) put it in a position to grow SI, SO and contract services at an attractive rate. Its industry strengths in manufacturing and finance will bring in jobs from Russia (CIS) and Eastern Europe as well.

The attention being given to strengthening the US component, CGA, through a build up of consulting, SO and SI capabilities may not make CGA one of the top performers, but it will help support activities.

CGS will continue to be one of the leading worldwide competitors based on its plans and market penetration in Europe. Its low margins and lack of team or practice-oriented business strength limit its ability to expand at the rate of Andersen Consulting or EDS, but it is taking steps to address these issues.

F
CSC - NON-FEDERAL

Exhibit F-1

Financials

	Revenues		Profit (before tax)	
	$ Millions	% Increase	$ Millions	% Increase
1991	758	21	58	16
1990	628	30	50	35
1989	483	56	37	54
1988	310	n/a	n/a	n/a

Exhibit F-2

Business Focus

Type of Business	Approx. %	Trends
Project-Oriented		
Project Responsibility		
Systems Integration	31	Increasing
Smaller Projects	40	Flat
Task/Contract Programming	6	Flat
Management Consulting	5	Increasing
Other (Network Services/Turnkey)	7	Flat
Outsourcing		
Platform Management	11	Increasing
Applications Management		
Network Supply/Management		
Other		
TOTAL	100%	

Exhibit F-3

Specialization

Geography	Approximate % 1992	1997
U.S.	87	83
Europe and Africa	13	15
Canada	-	-
Other (Asia)		2
TOTAL	100	100

Industry (if under 3% put in "other")	Approx. %	Trends
Manufacturing	19	Slight increase
Financial	30	Slight decrease
Telecomm, transportation and utilities	23	Not sure
Wholesale/retail and other services	16	Slight increase
Government		
Other	12	Not sure
TOTAL	**100**	

Exhibit F-4

Technical Specialties

Communications	
Network Integration	Specialty
Distributed/LAN	
Database	Specialty
CASE	
Transaction processing	
Data collection	
Other	

Acquisitions/Alliances

Most notable acquisitions in the commercial SI/professional services business have been Index Consulting, Computer Partners and Cleveland Consulting. CSC has made other recent acquisitions in these delivery modes including Butler Cox in the U.K. and Paragon in the U.S. (consultant in consumer products industries). Alliances have been made with Digital Equipment Corporation, Mitsui and other firms to expand market coverage.

Organization

Two of the three main operating groups provide SI/professional services: the Consulting Group (headquartered in MA), the chief provider of these services, and the Industry Services Group headquartered in El Sequndo. The former concentrates on SI, consulting and other professional services. The latter concentrates chiefly on outsourcing and processing, but provides modification and development work for clients. Sales and support people for activities work out of CSC offices (200 domestic offices and offices of overseas subsidiaries). There has been an attempt to emphasize teams more.

Training

CSC has a large scale training capability that addresses technology, management and industry subjects. Many members of the Consulting Group were hired for their knowledge and do not require a full program of training.

Compensation/Incentives

The Consulting Group awards commission-like bonuses to sales personnel. Performance on projects can also lead to bonuses.

Method of Planning for Growth

CSC has acquired the capabilities and industry strengths that have proved attractive in the commercial SI/professional services environment and is using its capabilities to manage large information services organizations to address the market. Additional industry strength and industry knowledge has been added through acquisition.

Strengths

Through Index, CSC has strong consulting capabilities that can appeal to strategic planning needs of prospects. Also, Index, Partners and Cleveland Consulting, as well as CSC, have demonstrated capabilities in performing large systems projects.

Weaknesses

Margins have been low compared to major competitors. When CSC/Index obtains real strategic planning project some clients have wanted to award follow on work to another vendor to keep CSC/Index disinterested in regard to planning. There have been continuing problems in getting merged companies to work together smoothly.

Overall Assessment

CSC is the largest, independent provider of information services. It has the size, reputation and capabilities to continue in the business, but its margins will have to improve in order to remain at the top level of competition. It has shown the capacity to analyze market changes and find partners or acquisitions that can help it to move ahead.

Adjustments may be advisable in its organization and approach to the market to bring the intensity in selling and focus on industry oriented solutions that Andersen Consulting, TSC and EDS, for example, bring to the business. The CSC organization may not create as much team or account oriented strength.

G
Ernst & Young

Exhibit G-1

Financials

	Revenues		Profit (before tax)	
	$ Millions	% Increase	$ Millions	% Increase
1991	551	12	105	11
1990	490	9	95	12
1989	450	43	95	41
1988	315	30	60	n/a

Exhibit G-2

Business Focus

Type of Business	Approx. %	Trends
Project-Oriented		
Project Responsibility		
Systems Integration	35	Increasing
Smaller Projects	45	Decreasing
Task/Contract Programming	7	Decreasing
Management Consulting	5	Increasing
Other (Software products)	7	Flat
Outsourcing		
Platform Management		
Applications Management	1	Increasing
Network Supply/Management		
Other		
TOTAL	100%	

Exhibit G-3

Specialization

Geography	Approximate % 1992	1997
U.S.	64	56
Europe and Africa	23	28
Canada	-	-
Other (Asia)	13	16
TOTAL	100	100

Industry (if under 3% put in "other")	Approx. %	Trends
Manufacturing	17	Increasing slightly
Financial	30	Decreasing slightly
Telecomm, transportation and utilities	16	Not sure
Wholesale/retail and other services	15	Increasing slightly
Government	12	Decreasing slightly
Other	10	Decreasing slightly
TOTAL	**100**	

Exhibit G-4

Technical Specialties

Communications	
Network Integration	
Distributed/LAN	
Database	Specialty
CASE	Specialty
Transaction processing	
Data collection	
Other: Quality improvement	Specialty

Acquisitions/Alliances

Alliance with Dun & Bradstreet Software as a preferred installer.

Organization

SI and professional services are sold and delivered through 100+ locations, worldwide with the aid of two technology centers than can bid on and handle special jobs related to their areas of expertise. One center (Massachusetts) is chiefly devoted to IT strategy and CASE and the other in Texas is devoted chiefly to IT delivery. The company serves clients through a consulting practice approach in which partners run teams that are assigned to accounts or industries.

Training

Comprehensive training in IT technology and consulting (practice) management as well as in vertical markets and business. IT training emphasizes strategic planning, CASE, decision support, workstations and other topics that E & Y uses to attract business.

Compensation/Incentives

Sales commissions and bonuses are used to motivate staff. The possibility of becoming a partner and the rewards of partnership are used at upper levels. E & Y also promotes their approach to the sale of IT services as a plus to encourage staff performance.

Method of Planning for Growth

Ernst & Young has used long term strategies such as CASE and information engineering, redevelopment, and strategic planning as a backbone to add services to and a means of attracting business. These emphases are used as topics in contact work and ways of providing a common orientation for planning the expansion of business through the network of sales offices.

Strengths

Knowledge of certain technological capabilities.

Contacts, organization and methods of providing accounting and consulting work gained in the past.

In depth knowledge of finance, distribution and manufacturing.

Weaknesses

Has relied on outside sources to provide new technological initiatives (even if they were acquired).

Has not developed unique combinations of industry and technical knowledge as EDS, Andersen Consulting, and TSC have.

Overall Assessment

Ernst and Young has been well positioned, with the right technology, industry knowledge and contacts to take advantage of the need in many large organizations to rebuild major applications and change the way that they use technology. Ernst & young will take advantage of this continuing opportunity and add new areas of expertise to meet prospect needs, but they will probably not achieve the levels of success of EDS or Andersen or TSC in developing solutions that uniquely exploit the use of technology to meet industry problems.

H
Oracle

Exhibit H-1

Financials

	Revenues		Profit (before tax)	
	$ Millions	% Increase	$ Millions	% Increase
1991	239	20	42	11
1990	200	39	38	27
1989	154	28	30	
1988	120	n/a	n/a	n/a

Exhibit H-2

Business Focus

Type of Business	Approx. %	Trends
Project-Oriented		
Project Responsibility		
Systems Integration	43	
Smaller Projects	47	
Task/Contract Programming		
Management Consulting (Professional Services)	10	
Other		
Outsourcing		
Platform Management		
Applications Management		
Network Supply/Management		
Other		
TOTAL	100%	

Exhibit H-3

Specialization

Geography	Approximate % 1992	1997
U.S.	38	35
Europe and Africa	50	49
Canada	-	2
Other (Asia)	12	14
TOTAL	100	100

Industry (if under 3% put in "other")	Approx. %	Trends
Manufacturing	15	Increasing
Financial	20	Increasing
Telecomm, transportation and utilities	10	Increasing
Wholesale/retail and other services	10	Increasing
Government	40	Decreasing
Other	5	Flat
TOTAL	**100**	

Exhibit H-4

Technical Specialties

Communications	
Network Integration	
Distributed/LAN	
Database	Specialty: Major emphasis
CASE	Specialty
Transaction processing	Specialty
Data collection	
Other	

Acquisitions/Alliances

Alliances with many hardware vendors including AT&T, Bull, Unisys, Convex, Data General, Unisys, Texas Instruments, Toshiba.

Organization

Direct sales force in the U.S, based in 40 metropolitan offices. International market is covered by wholly owned subsidiaries and independent distributors. This sales organization is supplemented with local SI, consulting, training people based on the volume of business. Additional resources are available from the home office or sites with large staff pools.

Training

Training in Oracle software products and in handling consulting assignments (many of which are based on Oracle software, previous experience in industry markets and software engineering specialty).

Compensation/Incentives

Salary plus commission. All employees are given incentive with the idea that the rapid growth of Oracle as a company (and its stock) provide significant opportunities.

Method of Planning for Growth

Plan to keep leveraging the use of data management expertise in relation to industry solutions to promote SI/professional services business. Also plan to promote situations in which SI and professional services can be used with Oracle software to provide synergy such as OLTP systems in manufacturing, finance and distribution markets; industry solutions that make use of past experience (e.g. for banking); and the use of CASE tools in conjunction with Oracle environments.

Strengths

Degree to which Oracle DB products are in use

Knowledge of industry markets

Experience with OLTP and CASE tools

Weaknesses

Dependence on continuing improvements in and popularity of Oracle software products.

Requirement to keep supporting older clients, who may not want to upgrade

Overall Assessment

Oracle has developed an image based on the use of its software products that will continue to promote the use of its SI and professional services. Oracle has also developed strengths to meet a set of the most significant current problems in application development, the use of distributed data and use of advanced development tools together with data management expertise. These strengths have been supplemented with industry and application knowledge that provides Oracle with the opportunity for further growth.

Oracle will need to expand its capabilities in technology, however, to continue its growth in the future.

Adjustments may be advisable in its organization and approach to the market to bring the intensity in selling and focus on industry oriented solutions that Andersen Consulting, TSC and EDS, for example, bring to the business. The CSC organization may not create as much team or account oriented strength.

I

Appendix I is intentionally omitted to avoid conflict with Chapter I numbering.

J
Perot Systems

Exhibit J-1

Financials

	Revenues		Profit (before tax)	
	$ Millions	% Increase	$ Millions	% Increase
1991	150	66	31	63
1990	90	125	19	137
1989	40		8	
1988	n/a	n/a	n/a	n/a

Exhibit J-2

Business Focus

Type of Business	Approx. %	Trends
Project-Oriented		
Project Responsibility		
Systems Integration	35	
Smaller Projects		
Task/Contract Programming		
Management Consulting		
Other		
Outsourcing		
Platform Management		
Applications Management	65	
Network Supply/Management		
Other		
TOTAL	100%	

Exhibit J-3

Specialization

Geography	Approximate % 1992	1997
U.S.	98	88
Europe and Africa	2	9
Canada	-	1
Other (Asia)	-	2
TOTAL	100	100

Industry (if under 3% put in "other")	Approx. %	Trends
Manufacturing	10	Increasing
Financial	35	Flat
Telecomm, transportation and utilities	-	Increasing
Wholesale/retail and other services	38	Decreasing
Government		Uncertain
Other	17	Not sure
TOTAL	**100**	

Exhibit J-4

Technical Specialties

Communications	
Network Integration	Specialty
Distributed/LAN	
Database	
CASE	
Transaction processing	
Data collection	
Other (Image processing)	Specialty

Acquisitions/Alliances

Organization

Organization is divided into groups serving target markets. Within those groups, the organization is divided into teams dedicated to certain client and prospect accounts.

Training

Have acquired very trained personnel. Will strengthen training to address new technology.

Compensation/Incentives

Bonus and commissions to stimulate sales and encourage performance. Esprit de corps is also used to simulate performance.

Method of Planning for Growth

Using same combination of technical and industry knowledge and intensity in selling benefits of technology that EDS uses.

Targeting markets that offer the most opportunity in relation to its methods.

Targeting prospects that could have large jobs and approaching them with ideas for gaining benefits through automation.

Relying on hiring and instilling the motivation and knowledge required to serve accounts successfully.

Strengths

Using a tested approach for gaining and performing business that combines intense and dedicated work with a reliance on technical knowledge.

Knowledge and experience of personnel that have joined company in technology and target markets

Have been encouraged by clients to take on systems operations business.

Perot name has proved to be a strength.

Weaknesses

Probably not as innovative as companies such as Andersen Consulting or TSC in developing products or technological approaches t meet classes of industry problems. May not be flexible in working with end user environments.

Overall Assessment

The company has successfully taken off and started to grow, but it will have to develop more of a plan for future growth and this may cause problems in market selection or development of technical resources.

The company has people who have the capabilities, knowledge of organization, and experience in sales and implementation that are required to succeed. If it can develop more comprehensive plans and learn to be more flexible in dealing with end user oriented projects, it can be one of the important competitors.

K
Technology Solutions (TSC)

Exhibit K-1

Financials

	Revenues		Profit (before tax)	
	$ Millions	% Increase	$ Millions	% Increase
1991	63	31	13	30
1990	48	45	10	43
1989	33	n/a	7	n/a
1988	n/a	n/a	n/a	n/a

Exhibit K-2

Business Focus

Type of Business	Approx. %	Trends
Project-Oriented		
Project Responsibility		
Systems Integration	95	Few changes
Smaller Projects	2	
Task/Contract Programming		
Management Consulting		
Other		
Outsourcing		
Platform Management		
Applications Management		
Network Supply/Management		
Other (Hardware/Software)	3	
TOTAL	100%	

Exhibit K-3

Specialization

Geography	Approximate % 1992	1997
U.S.	99	90
Europe and Africa	1	8
Canada	-	-
Other (Asia)		2
TOTAL	100	100

Industry (if under 3% put in "other")	Approx. %	Trends
Manufacturing	89	Relative decrease
Financial	9	Increasing
Telecomm, transportation and utilities		
Wholesale/retail and other services		
Government		
Other	2	Increasing
TOTAL	**100**	

Exhibit K-4

Technical Specialties

Communications	
Network Integration	
Distributed/LAN	Specialty
Database	
CASE	
Transaction processing	
Data collection	
Other	

Acquisitions/Alliances

TSC will acquire the staff of Clarkston Potomac who specializes in supporting SAA software. TSC has been a subcontractor to IBM.

Organization

Divided into three groups (manufacturing, financial services and consumer products) that concentrate on market targets. Organized like a consulting (or Big 6) practice with vice presidents including senior project managers chiefly responsible for sales and implementation of teams that they manage.

Training

Has relied on hiring people well experienced in the vertical markets and technology of interest to the company. On the job exposure and selected training are used for further development.

Compensation/Incentives

Project managers are paid at the highest rate in the business (average near $300,000) but they and all employees work with 10-25% of salary "at risk" if net income growth does not meet targets. If it exceeds targets, stock options are awarded based on performance. The result is a highly motivated staff.

Method of Planning for Growth

The incentive plan outlined above is one ingredient of TSC planning. A second is preparing in terms of finances and technological strength to be able t perform large SI contracts in selected areas of business, where high margins can be secured. A third, and related, aim is to leverage knowledge and experience with MRPII systems in two of its major target markets, manufacturing and consumer products.

Strengths

TSC has proved to have considerable strength in its ability to provide incentive to people and in its knowledge of how to manage and perform SI projects.

Its knowledge of MRP II products has also been reflected in projects.

Weaknesses

The percentage of its business which is based on large projects is a risk, although TSC is prepared to cut back personnel rapidly. Its new approach to providing personnel with incentive has risk in handling of some individuals. Market focus is not broad.

Overall Assessment

TSC has an energetic and enthusiastic approach to business combined with competence and methodology. It appears to be headed for rapid growth despite occasional contract losses and adjustments in entering new fields.

About INPUT

INPUT is a worldwide consulting and market research firm uniquely focused on the information technology services and software markets. Executives in many technically advanced companies in North America, Europe, and Japan rely on INPUT for data, objective analysis, and insightful opinions to support their business plans, market assessments, and technology directions. By leveraging INPUT's considerable knowledge and expertise, clients make informed decisions more quickly, and benefit by saving on the cost of internal research.

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